

no. 61, no. 20,612 to
no. 20,899.

Field Book
of
Willis Linn Jepson

1941

If lost finder please return
to W.L. Jepson, 11 Mosswood
Road, Berkeley, California
and receive reward.

Berkeley, June 1, 1941

1

Came to call this morning
Wm. Bridge Cooke, of Cincinnati,
who spends his summers on
Mt. Shasta as custodian of
the Sierra Club lodge. He is
the author of a list of
Mt. Shasta plants in the
Midland Naturalist. He says
H. E. Brown met A. A. Heller
in Idaho and became
thrilled with the idea of
collecting plants for sale
as dried specimens.
He was at Chico, where
Heller lived or worked, for
2 or 3 years, during
which time he collected
2 sets of plants on Mt.
Shasta for sale. Part of
these, says Heller, although
indicated as Mt. Shasta
were really collected

2

Berkeley

near Mt. Eddy. Cook says that some, listed for Shasta, he has never found on Shasta but do occur on Mt. Eddy. After distributing the Shasta sets Brown went down to Mendocino City, collected a set ^(in duplicate) there; and then disappeared.

Cook speaks disparagingly of the "varieties" published by M. L. Fernald. He brought in the name of Robert Clausen, Bailey Hortorum, who came west to collect all Sedums of western America at type localities [He failed to find *Congdonia pinetorum* at type loc. cf. infra p. 5.] Clausen, says Cook, is President of American Fern

June 1, 1941.

3

Society and has in Mem. Torr. Club, vol. 19, no. 2, presented Fernald's "varieties" in an unfavorable light, that is, "he ripped them all to pieces" his varieties in *Ophioglossum*.

— Here in Berkeley, E. A. Killip, U.S. National Herbarium. He says the U.S. Dept Agr. is now developing an Herbarium in rivalry to the National Herbarium. The Department of Agriculture has plenty of money, the Smithsonian Institution very little. We talked a bit about Corville's habit of receiving ^{T.F.V.} scientific papers ready for publication and delaying approval. It seems the "flora of Alaska no." is now out of date and

Berkeley

4 will never be published; although money was available in the Harriman Expedition Fund. That money has long since lapsed to the Harriman estate.

— *Quercus lobata*. Cont. from vol. 60, p. 500. On this vast treeless plain (treeless as to natives stands) any grove or line of native trees is to be noted. A line of Valley Oaks, 2 or 3 mi. e. of main valley highway, $5\frac{1}{2}$ mi. or so ss. of Merced or E. Perhaps along a water course. (In region of La Grana road?).

June 1, 1941

5

— *Congdonia pinetorum*. Sometime within the last two years a young fellow stopped me in the herbarium and began to ask about the above species. He had been to the type locality and never found it, although the flowering time was right for it. There was some discussion of the unreliable character of Mrs. Brandegee's field records by myself, as perhaps bearing on the matter. This young fellow did not tell me his name, but I think I found out who he was at once — a young botanist from Cornell, R. T. Clausen. It is my impression record was made of his visit at the time — but perhaps not.

6

Berkeley

— When in the field with Dr. Carl B. Wolf this last April — in the Old Dad Mountains — he asked what portion of the state I liked best to botanize. I replied: The deserts have for me an irresistible fascination and I come back to them again and again — and always regret missing a fine season in the desert — and yet it cannot be said there dwells in my breast a native affection for the desert ranges because of their ruthless implacable defiance.

The plain of the Great Valley is to me magnificent and I like to botanize on it, but its immensity, altho' appealing strongly

June 4, 1941

7

to the imagination, is rather overpowering. The white fir belt of the Sierra Nevada has a strong appeal and as to the alpine slopes of that mighty chain, — that region has a strong grip upon me. The Redwood belt is, once again, a magnificent region, but for sheer delight in botanizing, as appealing strongly to every sense sentimental and scientific, I like best the Coast Range valleys and their bounding ridges where still primitive or nearly so; the valleys of Lake County, Napa Valley, Santa Rosa Valley, the South Coast Range valleys as about Parkfield; and after there

8

Berkeley, June 4, 1941.

the inner valleys of San Diego County. It may truly be said there is no place in California where botanizing in the good seasons is not a happiness - save perhaps the shore line of the ocean. Here the utter cruelty and hopelessness^{of the sea} exerts unconsciously upon my spirit its enigmatic terror. As many many times as I have crossed the ocean, my reaction to it is always one of dislike. For fertility of the field in new things and new localities, the most desirable areas are the inner Coast Ranges and the eastern deserts and Inyo Co. One collects about California for a life-time; unquestionably he develops an affection for certain areas.

Berkeley to Tiburon, June 15, 1941. 9

Drove today, Sunday, with the Wheelers to San Francisco (on Bay Bridge). In the party Roscoe Wheeler, Jr., his daughter Dr. Helen-Mar Wheeler, his over-

- Notes from C. B. Wolf. Cont from p. 450, no. 20,365. This is always in sand. The other one, A. is in hard soil.

Eucelia actoni, no intergradation to *E. frontescens*.

Penstemon centranthifolius, near *Pastentia*.

Yucca with edible fruit and glaucous foliage. *Layia* *leucopappa* at Arvin.

- Cont. from p. 468. Cattle Reservoir = Steiner Reservoir.

10

Berkeley to Tiburon

grand-daughter Gail, ^{Voegelien.} We went
to Fisherman's Wharf to buy

Cont. from 60:460, top of page.
- We make no distinction between Old Mts. and Grante Mts. of maps. ^{Did} Here in this record I use only Old Dad Mts. for the whole. Old Dads = 6800 ft., highest. Providence Mts. = 7000 ft. highest.

- Cont. from vol. 60, p. 453. Dr. Wolf contends there is no intergrade from *Malacothrix californica* to its var. *glabrata*.

- The matter of L. R. Abrams' *Flora* of the Pacific Coast came up and I made comment on the vastness of the territory covered and the great ecological diversity. Wolf said Abrams was rather pushed into the job, a good deal against his will. ^{see} Men and Manners, vol. 14, p. 101.

June 15, 1941

11

shrimps. Fisherman's Wharf is in a picturesque locality, that is North Beach. Thence, we drove (over)

- Cont. from 60:496 (bottom of page). I worked on down to the flat and after about two miles reached camp, where we passed the night. Next morning, Apr. 30, we worked back over the meads to the road leading towards Cove Spring and went on past the spring into the pass between the Old Dad Mts. and the Providence Mts. Here we turn a short distance (100 yards or so) off road to Cattle^{*} Reservoir (see 60:468). From here we go on to Waterloo Wash (cf. 60:469). Pick up itinerary 60:470.

* Stevens Reservoir.

12

Berkeley to Tiburon

westerly to the Golden Gate Bridge.
On the bridge to Sausalito and then
(cont. p. 13)

-Continued from 60:485.

C. B. Wolf says Professor L. R. Abrams is now sorry he became involved in the four-volume flora of the Pacific Coast. Wolf has old relations with Abrams. It was when he was at Occidental College, I think, that Abrams gave him or made available to him money for field work.

It interested me that Dr. Wolf knew well how the Botany of the Death Valley Expedition was made up by Coville and not in any very critical manner.

C. B. Wolf has various things

June 15, 1941

13

to the Tiburon peninsula along the highway. Leaving the highway (over).

to say about *Cupressus bakeri*. He makes Charley Hill's farm and the *Cupressus bakeri* locality ten miles apart. I myself walked it (cf. F. B. 29:46), — the old abandoned stage road.

- Cont. from 60:486 at bottom. From the Kelso Mts. we run down to Baker and thence by the highway to Yermo, Barstow and Daggett. (The Mohave River cannot now be forded near Yermo, the bridge is "stranded" by the moving of the river, and so we go to Barstow and back to Daggett. No *Yucca brevifolia* seen on this entire trip, Daggett to Old Dad Mts.

14

Tiburon Peninsula, Marin

we enter the Belvedere side road
and in about one-quarter mile we
stop at a point where the road
(Cont. p. 15)

- Cont. from vol. 60, p. 486. *Coryphantha arizonica* (Engelm.) Britt. +
Rose is in the Providence Mts. acc.
C. B. Wolf. (I think it was
Wolf who gave me this note*).
Benson, L., *Cacti of Ariz.*, p. 121,
makes this name a synonym
of *Mammillaria aggregata*.
He does not recognize *Coryphantha*,
nor does my Manual.

* more likely Luis Beal

Co., June 15, 1941.

15

borders the salt marsh (to right)
and the naked hills rise up left.
Here we examine the salt marsh
a bit:

- *Salicornia ambigua*.

- No. 20,612. *Corydanthus maritimus* Nutt.

Upper calyx -
segment minutely notched, lower
segment shortly cleft into 3
teeth, the middle tooth largest.
Lower (longer) filaments a little
clavate - thickened upward; anther-
cells yellow*, distinct, curved
downward, the tips of the cells
with a minute hairy tuft.

Style standing under the
galea, its stigma just barely
protruding. Shorter stamens
one-celled, curved downward →

* = saffron

16

Tiburon Peninsula, Marin Co.

slightly below the horizontal, its tip with a microscopic tuft of short hairs; the second ^{stellate} cell represented by a deflexed bristle. Corolla whitish, the lower lip dark-purple at tip. Bracts purplish brown. Lower stamens: anthers of pair stand over one another.

Salt marshes, forming tiny colonies 1 foot across or so.

No. 20,613.

Triglochin concinna Davy
salt marsh.

No. 20,614. *Frankenia grandifolia* Cham. & Sch.
Salt marsh.

June 15, 1941.

17

No. 20,615. *Centaureum*

Cov. - lobes pink (deep), the throat white, the white extending out a little onto the cor. lobes.

No. 20,616. *Filago gallica*

grassy hillside.

No. 20,617. *Lythrum hyssopifolia* L.

Colony, dense - 3 ft. across; flat at Tiburon.

No. 20,618. *Lolium multiflorum* Lam.

flat at Tiburon.

No. 20,619. *Spergularia*

rubra (L.) J. & C. Presl. annual; on alkaline flat at Tiburon.

18

Tiburon Peninsula, Marin Co.

No. 20,620. *Juncus*

Paradise Cove,
near shore. Colony, small and
pure. Strand of Bayshore.

No. 20,621. *Distichlis spicata* (L.)

Greene. Quite a wonderful dense
colony on the strand by bayshore.

♂ and ♀

— For a luncheon ^{spot,} we took a side
road in the town at Tiburon and,
parking the car off the wagon-track,
we climbed through a barb-wire
fence and went up an oak-crowned
slope into a little glade. We had
hot consomme, fried chicken;
black olives; shrimps; green
olives; avocados; a variety of
sandwiches; shoe-string potatoes;
cucumbers; frosted and un-
frosted cake; and a lot of
other things I have forgotten. As

June 15, 1941.

19

We sat here under the oaks, a
view, broad and stirring, opened
southward — a series of contrasts:
the oak-crowned slope; a marsh at
foot of ^{the} hill filled with rushes
and tules; a playing field
bordering the village of Tiburon
with a base-ball team and
spectators; next the seaway of
the Golden Gate and rising on
its hills southward the sky-
lines of San Francisco; the
sky-scrapers on Nob Hill, the
tall business blocks to the left;
Russian Hill, and finally Tel-
egraph Hill with its tall
Coit Tower.

After leaving Tiburon Peninsula,
back to Berkeley via Richmond
Ferry.

Roscoe Wheeler (see p. 9 ante)

20

Tiburon, Marin Co., June 15, 1941.

E.L.

says he knew Greene when in college (Class of 1891) at Berkeley. He took no classes with Greene but he had botany in the Oakland High School under Mead. It was Wheeler's task, since he lived in Fruitvale, furthest out in the country, to bring in native plants for the use of the botany class. It seems there was also a Botany class at the Y.M.C.A. To help out this gathering, E.L. Greene of Berkeley sometimes came from Berkeley to talk to the group. Wheeler has to this day pleasant memories of Greene. He says that in meeting you he was always so pleasant. It is certainly very remarkable how many persons remember Greene.

Tiburon, June 15, 1941.

21

after a period of fifty or sixty years - and whose intercourse with him was somewhat casual. Nearly all have happy memories of him.

- Cont. from vol. 60, p. 419.

Dr. J. H. Webber had a bit to say about W. Lawson Scribner, the agronomist of the United States Department of Agriculture. Scribner was an able man, it seems, but he had a trick of taking the work of subordinates, their research papers, and publishing them as his own. All this created in time such a scandal that he was finally retired from the Department.

22 Vaca Valley, July 1, 1941.

No. 20,622. *Centaurea solstitialis*
L. Flowers only, collected merely
for examination of pappus.

Berkeley

July 5, 1941.

23

Bupressus macrocarpa Hortw.
A fine tree has long stood
on the campus lawn, lin-
early grounds, about 100 yds.
north of the Dana street
bridge. Recently it has
been attacked by borers
and began to die in the
top about 2 years ago.
It is now being taken down.
The trunk at 3 feet 6 inches
above the ground measures
17 feet 8 inches in girth.
When the tree was much
younger, say about thirty
years ago, I had a photo-
graph made of it; from the
photograph a lantern slide
which I have shown to
hundreds of audiences - a sym-
metrical tree contrasting with

24

Berkeley

the picturesque wind-broken trees of the cliffs at Montrey. — July 5, 1941.

— G. V. Morton of the United States National Herbarium is here in Berkeley, was my guest at my home, at 11 Mosswood Road, last night. He has been in S. Cal. where he saw Murray; at Fresno where his mother lives (his mother married a second time and he says his step-father seems like a father; having known no one else for twenty-five years, the greater part of his life that he could remember well). He went to Stanford where Wiggins got together, for a luncheon for him,

July 17, 1941

25

R. B. Baskin, Lyman Benson, C. B. Wolf, all of whom chanced to be there.

He says plans have been drawn for an addition of two wings to the United States National Museum in Washington (one wing of which is intended for the National Herbarium), but no money has been appropriated. The Smithsonian Institution building is old, is not fire-proof. This is where the National Herbarium is now housed. The types are segregated.

When the Bureau of Plant Industry was reorganized four or five years ago, all the "offices" were merged in the Office of Plant Exploration and

26

Berkeley, July 17, 1941

Introduction under Ben G. Morrison.
Morrison has acquired a lot
of taxonomists, namely:

Swallen, grasses
Rogers McVaugh, Lobeliaceae.
Blake, Compositae
Fosberg,
Hermann (Juncaceae).
Martin (Gentians, Crucifers)
Freeman (Labiates, Ranuncul-
loaceae)
Erlanson
Archer
Waintroub (a woman)
Miller (oaks).

Morrison's office is building up an
herbarium, entirely distinct from
the National Herbarium. It is
called the National Arboretum
Herbarium. — July 17, 1941.

Cont. p. 28.

Berkeley, July, 1941.

27

misc. notes:

- *Navaretia leuccephala*. Heads so
finely spinulose as to appear
fimbriated.
- *Gilia aggregata* Spr. Indian
legend concerning. Contrib.
U. S. Nat. Herb. 5:103.

28

Berkeley, July 17, 1941.

Cont. from bottom p. 26.

Morton has a sister at Long Beach, whom he visited when in S. Cal. In San Francisco he called at the California Academy of Sciences and Howell took him on a trip (John Thomas) to Mt. Tamalpais.

- Newton B. Drury, Director of the National Park Service, called on me at my home here in Berkeley today, July 20. This visit gave an opportunity to talk over various Redwoods League matters. Also, I put before him the case of M. French Gilman of Death Valley who is to be retired automatically from the Park Service next November but who wishes to be kept on. Drury promised to do what he

29

could for him. See my letter to Gilman dated July 21, 1941.

30

July 29, 1941, Berkeley.

- Dr. Rogers McLaugh, U. S. Bureau of Plant Industry, calls today. He is interested in collecting *Amelanchier* and is planning to collect all published West American species at their type localities. So that he may see the *Amelanchier* here in this region I take him to Moraga Ridge. Here we find a colony of *Amelanchier alnifolia* at north end of ridge proper; and go on along the ridge surveying the shrubs - an amazing collection in a small area of the curiosities of extreme xerophytic situations - including the amazing fire-type pine, *Pinus attenuata*. He is much pleased with it all, ^{McLaugh,} and also collects in the meso-

Berkeley, July 29, 1941. 31

phytic habitats on the Redwood borders. - Coming back to Berkeley I discover Mrs. McLaugh is traveling with him and so I have the two of them to an excellent dinner, after which I sit in front of the great window in my living room on Mosswood Road and view the lights of the Bay region. Dr. McLaugh inquires about my journey to Nuttall's old home in Lancashire and I relate the high lights of that trip, and my objectives. I explain that Nuttall was not interested in adventure as such, was a matter-of-fact traveler with definite purposes and objectives of a scientific nature and never played up hair-breath

32 Berkeley, July 29, 1941.

escapes for dramatic effect. If he related "thrills" and accidents at all it was soberly, as becometh a scientific mind. David Douglas was the opposite - no great adventure with him, and he had many, even lost anything in the telling. He had the dramatic Touch and he left out a good deal of a certain sort from the narrative which heightened the effect of the rest or colored it more brightly or put it in a more interesting light.

The McVanglers were delighted with their entertainment and went away much pleased. They drove across the continent to California.

Oakland Hills at Thom Hotel. 33
Alameda Co. July 29, 1941

No. 20, 623. *Dirca occidentalis* Gray. Leafy branches.

No. 20, 624. *Osmorhiza cerasi-*
formis Greene. Slender bush
7 ft. h.

Berkeley, Sept. 19, 1941

No. 20, 625.

This cichoriad composite produced one individual 6 ft. tall. It grew in waste ground in the lower part of my garden at 11 Masswood Road.

- *Gynoglossum occidentale* Gray. Pedicels of flowers arising from nearly one point on stem apex. Leaves often tend to be congested a little below middle of the stem.

34

Berkeley, August 29, 1941

— Dr. H. W. Housis of Carmel called third week in July, either July 17 or 18. I took him to luncheon. On the alternative day I took some other botanical caller to luncheon.

— Dr. D. J. McDougall of Carmel is in Berkeley today. He says: N. L. Britton had a fearful time getting his illustrated flora in print. No publisher but that was afraid of it. Britton finally had to guarantee the cost. He borrowed \$20,000.00 from Judge Addison Brown at 6% p. Brown stipulated as a condition of the loan that his name should go on title page and after that insisted on collaborating on the text. Mrs. Britton wept tears over the pay-

Berkeley, Aug. 29, 1941.

35

ments made Brown.

McDougall says Louis Agassiz destroyed "intermediate" shells that were work, ^{but he mistakes} of the creator. If I had seen this story in print it has gone out of mind. Agassiz quite overshadowed Asa Gray who took up Darwin's theories.

McDougall says the Carnegie Institution gave, granted, Luther Burbank \$50,000.00, the payments being made of \$10,000.00 a year for five years. Burbank never made any reports, so that all that the Carnegie Institution has to show for its \$50,000.00 are the drafts endorsed by Burbank. McDougall is confident that as a result of the Carnegie grant

36

Berkeley, Aug. 29, 1941.

nothing happened but that would have happened anyway if the grant had not been made. So, the money was wasted so far as the Carnegie Institution is concerned.

McDougal was at De Pauw University in his young days as assistant to Oliver Jenkins whom David Starr Jordan brought with fifteen other middle-west professors to Stanford University. Ambrose Bierce referred to them as the "mild representatives of the comforted belt".

McDougal in his home garden at Carmel is growing the native California roses. This matter of variation

Berkeley, Aug. 29, 1941.

37

in roses led on to my speaking of the enormous variation in California species; and the difficulties encountered in progress on the flora of California. McDougall said:

"from a genetical standpoint, I regard the flora of California, as the most interesting flora ever within my experience."

— E. Yale Dawson, a graduate student, home Long Beach, comes to call today. He wants to know about the identity of a paper on the seaveras of Santa Barbara by Sara Ann Plummer. Harold St. John has asked Prof. W. A. Gatchell for information of it, and Gatchell referred the matter to Dawson. I pointed out that the ^{↑ J. G.} enormous not infrequently

38

Berkeley

announced papers which they planned to write and were wrote. Perhaps this was one.

Dawson was on one of the Hitchcock Expeditions to the Gulf of California for seven weeks in Feb.-Mar. this year or Jan.-Feb., collecting marine algae. He is, he says, a candidate for Ph. D. here, with Lee Bunker as chairman of his committee, with Gilbert Smith as special advisor on the algae. The Hitchcock expedition is a University of Southern California set-up. - Sept. 5, 1941.

39

- *Guiliclina Crocker*, spelled so, not as below. Class '86, Univ. Cal., student of E. L. Greene.

- *Phacelia ciliata* Bth. Fairly common in Feb., abundant in Apr. Fills the grain fields near Newark. Odor very noticeable, even as one passes along roadways. Gives a blue color to the fields. - *Wilhelmina Crocker**
* see above. Apr. 16, 1898.

- *Phacelia Rattani* Gray. "Russian River above Ukiah, June, 1884, Rattan", a specimen in Gray Herb. Gray in Synoptical Flora simply says: "Russian River", and E. L. Greene assumes therefrom "Sonoma Co." which he writes in Man. Bot. Reg. S. F. Bay, p. 254. Not yet found in Sonoma Co. - W. L. J., Gray Herb., in 1896.

40

Berkeley Hills.

41

Eleonora divaricata (Bth.) Gray.
Eleonora divaricata (Bth.) Gray.
 Berkeley Hills, S. F. Hills, Apr. 4, 1892.

— *Memphila insignis*: "a humble but
 lovely plant, the harbinger of California
 spring, which forms, as it were, a
 carpet of tenderest azure hue."—
 David Douglas at Monterey, in
 1830. See his journal, *Companion*
 to the *Botanical Magazine*.

42

Berkeley to Rancho Santa Ana
Oct. 22, 1941.

Left Berkeley 10:30 this morning, bound for the annual council meetings at the Rancho Santa Ana Botanic Garden. Drove via Dublin Pass through the Livermore Valley and Altamont Pass into the San Joaquin Valley. Northwestward from Los Banos 6 or 8 miles (westerly from Volta) is a considerable area of *Albertya occidentalis* on alkali - a pure colony, that is without admixture of other shrubs or bushes. The bushes have turned a bit yellowish - in response to the fall of the year. Easterly from Los Banos 4 or 5 miles is another large area of the same species on alkali, also turning a bit yellowish. Drove south to Coalinga and stop over night at

Devils Den, Kettleman Plain,
Kings Co., Oct. 22, 1941.

43

Hotel Petrolia. Next morning drive south and near Devils Den road station I stop and collect:

✓ No. 20,626. *Salsola Kali* L. var. *tenuifolia* Tausch. Forming bushes 1 1/4 to 4 ft. high, rounded, 2 to 7 feet broad, blackish, now dead and dry but still full of form as if alive, chiefly along the roadways but spreading over the plain in some places.

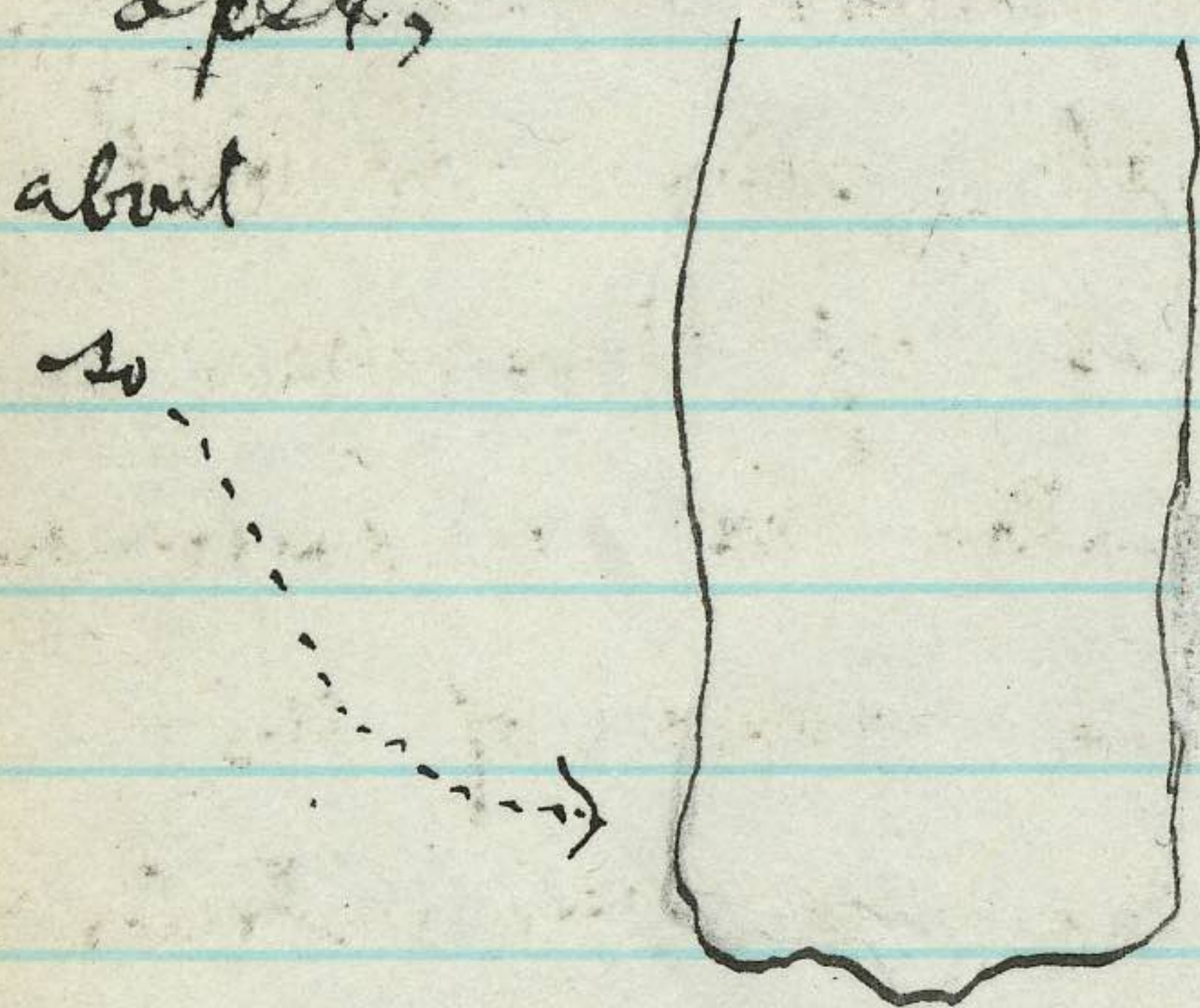
✓ No. 20,627. *Eriogonum angulosum* ^{Benth.} Fls. pink. Sandy plain.

✓ No. 20,628. *Gutierrezia bracteata* Abrams loose bush; rays 5, yellow. Stems several from ground. Spun. taken from near ground.

44

Devils Den, Kettleman Plain, Kings Co.
Oct. 23, 1941.

No. 20,629. *Trichostema lanceolatum* Bth.
Upper lobes and lateral lobes
unequal in size and shape.
middle lobe of lower lip rising a
little above lateral lobes and
then curving outwards, its sides
raised a little, slightly constricted
below the somewhat expanded apex
which is a little cupped; this
apex,
about



Sandy plain.

No. 20,630. *Salvia carolinensis* Bth.
Fruiting stalks from a colony on
the sandy plain, the plants
now dead.

Kettleman Plain, Kings Co.
Oct. 23, 1941.

45

- A little south of Devil's Den, to
the right, on west edge of Kettleman
Plain, rise a marked line of foothills
composed of a series of unequal
peaks, not wholly rhythmic but
markedly so. The south end of
this little line of foothills* is
nearly opposite an east and
west road across the valley,
paralleling the Coast Hills road
which lies south some 10^{or 12} miles.
The west projection of this road
would about center on a mount-
ain in the main ridge of the
inner Coast Range, a mountain
which is rather prominent from
this point, probably Orchard Peak.

* Pyramid Hills

46

Ventucopa, Cuyama Valley, Santa Barbara Co., Oct. 23, 1941.

I drive on south to McKittrick and then to Taft where I stop for a bottle of milk. On to Maricopa, thence to the Cuyama Valley.

Near Ventucopa I collect:

No. 20,631. *Chrysanthemum* ^{nauseosus} var. *graphalodes* (Greene) Hall This formed large

areas in the Cuyama Valley, primitively.

No. 20,632. *Azalepias*

Stems spreading, several from one root-crown and so forming low almost decumbent tufts on the plain which are quite striking for so small plants. Sandy flat near Ventucopa.

Pine Mountain, Ventura County

Oct. 23, 1941

47

North slope, on lower part of mtn.

No. 20,633. *Stephanomeria virgata*

This composite grows 2 to 4 ft. high, its axis unbranched but with lateral branches from the base.

No. 20,634. *Senecio douglasii* DC. Rays 7.

No. 20,635. *Lesqueria Corethro-gyne* Stems several from the base, nearly erect, simple below the terminal cyme. Rays ^{dark} purple. (Spines cut from near base)

No. 20,636. *Artemisia tridentata* Nutt. Filling cañon bed. The plants look opulent - the first time my eyes ever saw a thrifty look to sagebrush

48 Pine Mountain, n. Ventura Co.
Oct. 23, 1941

Species noted:

Pinus monophylla
Pseudotsuga macrocarpa
Ceanothus leucodermis Greene.
Quercus dumosa Nutt.
Eriogonum fasciculatum

no. 20, 637. *Elymus condensatus* Presl.
[det. Beecher Crampton, 1972]
This grass forms a heavy
stool 7 to 8 feet high on a dry
hillslope.

no. 20, 637a. *Gutierrezia bracteata*
Abrams Composite bush 20 in. h.
Sespe Gorge, Ventura Co.

- I climb to top of Pine
Mountain, then descend south
slope into the Sespe Gorge
and collect

Sespe Gorge, Ventura Co. 49
Oct. 23, 1941

no. 20, 638. *Brickellia*
californica (T. & G.) Gray

no. 20, 639. *Lepidospartum squamatum*
(Gray) Gray
This rayless composite
about 3 1/2 ft. high.

no. 20, 640. *Artemisia*
Stems several, quite
simple, forming a loose clump,
cañon flat.

no. 20, 641. *Baccharis glutinosa*
Pers. 8-9 ft. high.
Cañon bottom.

- The fisherman's guide: see p. 50.

I climb out of the Sespe
Gorge to the top of
and descend into the
cañon of Matilija Creek. A mile
or two easterly from Wheeler's

50

Matilija Creek, Ventura Co.

Oct. 23, 1941.

Hot Springs I find *Juglans californica* Wats. frequent along the cañon bottom and on the slopes.

No. 20,642. *Juglans californica* Wats.

Near Wheelers Hot Springs, Matilija Creek.

- I run on past Ojai and thence down to the Santa Clara River. Or into Ventura town, where I put up at Hotel Hoover.

- When botanizing in the Sespe Gorge (see p. 49) a stout man of about forty, a bit dark complexion, suddenly appears, and we fall into talk. His name is Victor Mangani of Ventura. He has, in this somewhat wild spot, a leisurely accustomed air. It develops it is his business to bring sportsmen into this region. Some man he has brought in is now fishing

Ventura to Rancho

Santa Ana, Oct. 24, '41.

51

along the stream where he says there are plenty of trout. He claims to be of Spanish or half-Spanish ancestry, but I would have supposed his name indicated Italian.

- I drive on this Friday morning, ^{early,} from Ventura to Calabasas, thence across the heavy highways of traffic to Altadena and call on my old-time friend Frank W. Peirson. Thence I go on to Fullerton via the San Gabriel Highway and the Whittier Boulevard and go on east to the Rancho Santa Ana where I am greeted by Mrs. Ernest A. Bryant. After which I go to the Herbarium where I find Dr. C. B. Wolf, Mr. P. C. Everett, Mr. Silva (a new man) and

52

Rancho Santa Ana Botanic Garden

Mrs. Norland. We have a lot of talk. The next morning there is more talk and the councillors begin to arrive for the mid-day meeting: Dr. J. H. Webber, Dr. Milton Webber, Dr. P. A. Murray, Dr. LeRoy Abrams; Dr. Russell Sage Woglum; Mr. Theo. Payne; Mr. Howard; Thos. Morgan. Dr. Evers arrived the night before. Mr. Stephenson of Anaheim was also there. And the trustees: Ernest A. Bryant Jr.; Allen Chickering; Stuart O'Melroy.

At the main meeting I read the report on the Committee on Publications in regard to a plan for publications. Dr. Murray talked on the matter of protecting herbarium

October 25, 1941.

53

specimens from insect depredation. Dr. Woglum talked on the matter of insect and disease attack on living plants at the garden.

Towards the end of the session Mrs. Bryant asked for counsel as to how the Garden could best contribute to "national defense", which is now being agitated nationally by the President. Dr. Abrams responded by saying briefly: "By keeping to its ideals!" A most excellent adumation. At this point Dr. J. H. Webber was inspired to expand Abrams' sentiment and he talked for a few minutes, well and cogantly, on the importance of conserving scientific ideals in the Garden, of so carrying on that a

54

Altadena, Oct. 27, 1941.

tradition of high achievement may be well established in the Garden.

I stopped over the second night at the Garden and the next morning about 10:00 left for Altadena. At Altadena I went to the home of the Pearsons where I was most hospitably received by the family. Much time was spent in talking over botanical matters. Mr. Pearson had much to say about Rock Creek Lakes basin in Inyo Co. and his collecting there. Rock Creek itself runs down the Sierras into Mono Co. So that his "Rock Creek" plants are Mono Co.; the high mountain Rock Creek Lakes basin plants are Inyo Co.

Fremont Pass, cent. Los Angeles Co.Oct. 28, 1941.

55

- Tuesday morning about 8:00 o'clock, Oct. 28, I drive through the San Fernando Valley over Fremont Pass to the Ridge Road. In Fremont Pass, I collect the following:

No. 20,643.

This cheopod forms on the ground a quite flat or prostrate mat 4 to 6 feet broad.

Fruits fleshy, reddish.

No. 20,644. *Franseria acanthicarpa*

(Hook.) Cov. This umbrosoid grows twice as high as the individuals taken.

No. 20,645. (*Isocoma*) *Haplopappus venetus vernonioides* (Nutt.) Hall. A sprawling shrub 6 to 8 feet across.

No. 20,646. *Baccharis glutinosa* Pers.

9 ft. high.

- *Juglans californica* Wats. South side of pass.

56

n. Los Angeles Co., Oct. 28, 1941.

No. 20,647. *Senecio douglasii* DC.
Pinn Gorge, 4 to 6 ft.
high.

No. 20,648. *Chrysanthemum nause-
osus* var. *mojavensis*
Peace Valley. (Greene) Hall
4 to 5 ft. high.

No. 20,649. *Franseria acanthicarpa* (Hook.)
~~Ambrosia~~ (det RCB - Jan. 4, '66)
4 ft. high, branching
from base; therefore widely bushy.
The specimens taken are lateral
branches. Peace Valley.

No. 20,650. *Helianthus*
7 ft. high, widely
branching from base. Peace Valley.
- *Quercus lobata* Née. on Ridge Road near
Violin Summit.
- From the Ridge Road and through the
Tegon Pass I come out at the
bottom of the Grapevine Cañon

Rose sta., Kern Co., Oct. 28, 1941.

57

and pull out to the side of the road
on reaching the valley floor of the
San Joaquin Valley. The day is one
of superb splendor - the blue sky
is freighted with magnificent
cloud masses which dapple the
Tehachapis and the valley floor
with dark shadows set off sharply
by sunlit areas. An autumnal
light mist renders distances attra-
ctive and I step out of the car
to study the sloping valley of the
Tegon Rancho to the east - a valley
lying between embracing foothill slopes
and receding into the mass of the
range. Its ^{thinly} wooded areas, its mesa
floor, the surrounding mountains
lead to it at this distance a
glamour of enchantment, - a
sense of the primitive, the un-
spoiled, something apart from

58

Bakersfield, Oct. 28, 1941

civilized ways and their uses. Nor must I forget a remarkable scene as I came down the Grapevine - the great rounded foothill mass lying on either side - bold, naked, smoothly flowing in its form - and all vibrant as it were with color - a strange light tan - the tan of the grassy hills that is subdued into a softer phase by the first rains!

I drive on into Bakersfield and take the road north to Fresno. On this main highway of traffic there is much moving of heavy freight: trucks loaded with wheat, trucks piled high with bales of hay, piled high with bales of cotton, trucks carrying sand and cement, great loads of old

Fresno, Oct. 28, 1941.

59

furniture, great box trucks like freight cars filled with goods of many kinds - and one then came by, filling the valley air with a sweet odorous pungent tang, a load of newly milled boards of pine and fir from the Sierra Nevada. This truck was traveling about forty miles an hour! How wonderful that it should fill the air as it went along with this glorious aroma of the mountains! and that I should enjoy the sensation, even though meeting and passing it - I was myself traveling fifty miles an hour!

I stop at Fresno a little before 6:00 and put up at the Hotel Sierra.

60 Lingard, Merced Co., Oct. 29, 1941.

The next morning, Wednesday, I go on north through a heavy fog. It is not so very dense and about Madera the sky is clear. Near Lingard, 6 or 8 mi. ss. of Merced, I stop and collect in an alkali area:

No. 20,651. *Centromadia* = *Hemigninpingem*
(H. + A.) T. + G.
Abundant.

No. 20,652. *Helianthus*

- Arrive in Berkeley at 3:00 pm.

Berkeley, Nov. 11, 1941.

My guests at
My luncheon today at Faculty Club were J. Francis Macbride and Lincoln Constance. Macbride has been in Europe a number of years photographing types of South American plants

Berkeley, Nov. 11, 1941.

61

for the Field Museum. He was in Peru, say about 20 years ago, and is now working on Peruvian botany.

He is a rather small man with rather small plain features and a thin lot of hair on top - but he has a marked charm of manner in intimate conversation, a fund of quiet humor which seems inexhaustible.

He knows European botanists well and European botanical centers. Speaking of Leyden, I referred to the age of the place and he interjected: Do you remember that old Ginkgo tree in the Botanic Garden?

The Redwood belt in California impresses him more, he says.

62

Berkeley, Nov. 11, 1941

than the Big Tree groves.

He spoke feelingly of the cold winters in Madrid and Paris. "No heat in the herbaria - none whatsoever. One wears an overcoat, maybe a sweater, also mittens on the hands. It is necessary to learn how to adapt yourself to the cold. For one thing you always work standing up! You rub your hands to restore circulation. You go outside and get a bit of exercise.

After you have succeeded in establishing this thing called "good will", which is very important, then you are admitted to upper regions or attics where endless numbers of bundles are stored. Here you may find many precious duplicates -

63

Berkeley, Nov. 11, 1941

duplicates of the things which you have already photographed the types! And in some cases I succeeded in talking them into sending a duplicate set to the Field Museum.

In one case at Madrid I secured a loan for Geneva - and I took the precaution to attend to it all myself. Once the signature was obtained from a high official granting permission for the loan, I myself took the parcels one by one to the postoffice, addressed them, stamped them and saw them off. Otherwise, if left to others, delay prolonged might have canceled the loan."

Macbride and I drove to Stanford on Tuesday, Nov. 18, to

64

Berkeley, Nov. 18, 1941.

see the Dudley Herbarium. We met Dr. Ira L. Wiggins, Mrs. Harris, curator, and the lichen expert.

— Prof. Carl Epling, U.C.T.A., called March 11, 1942, at the laboratory, in the afternoon. I was at home and so missed him.

— Today, April 6, 1942, I am in Vaca Valley at Little Oak. It is an ideally perfect day of the kind in which one as a lad luxuriated, hiking abroad on the green hills, the crowns of the oaks newly bursting, the snowy Sierras on the horizon with white clouds tumbled above them. (For relative spring burst of the leaves of various trees at Little Oak, see Men and Manners 14:112.)

No. 20,653. *Cotula australis*

In garden at 11 Mosswood Road Berkeley, Apr. 19, 1942.

Berkeley

65

No. 20,654. *Medicago*

In the lawn at 11 Mosswood Rd., Berkeley. Apr. 19, 1942.

No. 20,655. *Sagina apetala* Ard.

Apparently apetalous. In the garden at Mosswood Road, Berkeley, California, on a beaten spot.

Apr. 19, 1942.

Little Oak Ranch, Vacaville

May 8, 1942.

No. 20,656. *Phalaris paradoxa* L.
(det. Beecher, Crampton, 8/77)

This grass is common in low places on the plain everywhere; is called Water Grass by the ranchers.

— Today the sky is heavily overcast and a stiff wind moves. But the countryside is greener than I can ever before remember at this time in May.

66

Rancho Cantua, Cantua Creek,
c. 1000 ft.

✓ No. 20,657.

This grass colonizes a rock-
pile or rocky outcrop.

✓ No. 20,658. *Delphinium*

North-facing hillslope.

✓ No. 20,659. *Sitanion jubatum* J. G. Smith
(Det. Beecher Crampton, 8/77)

This grass, many stems in
a coarse heavy tuft, grows in a
rocky outcrop.

✓ No. 20,660. *Elymus triticoides* Buckl.
(Det. Beecher Crampton, 8/77)

This grass forms a dense
pure colony circa 12 x 30 feet
on a creek bench, first bench above
present water level, itself under
water in winter.

✓ No. 20,661. *Ribes quercetorum* Greene

Broad rounded bushes
about 3 feet high, broader than
high. About 2 mi. above (westerly)
from Rancho Cantua ranchhouse.

No. 20,661a. *Avena barbata* Port ex Link →
See p. 67. (Det. Beecher Crampton, 8/77)

67

w. Fresno Co., May 20, 1942.

✓ No. 20,662. *Stenotaphrum linearifolium*

Bush about 2½ to 4
feet high. Erect branches. Leaves,
especially secondary, tending to be
revolute, sprinkled with minute
resin dots, the areas between
dotted with more minute whitish
dots. Rays 11; only one head
found in flower; most bushes
past flowering.

✓ No. 20,663. *Isocoma*

Bush 2½ ft. h.; on flat.

✓ No. 20,664. *Atriplex polycarpa*

Broad bush 5 ft. h.

- *Avena fatua* L. See no. 20,661

There were no "wild oats" in
the Cantua country in the "earliest
times", say up to about 1900. In
that year or a few years before
S. C. Hillis first came into the

68

Cantua Creek, W. Fresno Co.

Cantua Creek country and bought land. In those years, say about 1900, when taking his daughter with him into that region he remarked to her wild oats were now appearing in the Cantua.

— *Marrubium vulgare*

In the Cantua country this species is a relatively recent arrival. Its distribution is definitely associated with sheep. The hooked tips of the calyx cling readily to the fleece of sheep, and thus are the seeds dispersed. So much is this the case that in this region the plant is known as "sheep weed".

— *Centaurea melitensis* is a more recent arrival in the Cantua, say in the last four or five years.

May 20, 1942

69

— Left Berkeley Tuesday morning, May 19. At Mendota I telephoned to the Rancho Cantua. Turned off the Coalinga Highway up Cantua Creek. In the cañon the wagon trail forks the creek several times and runs along the hillsides above the creek bottom by a very ^{just} narrow track. At Rancho Cantua there are some small farm buildings, some seven cabins in a cluster set in a tree-planted area. The cabin containing the kitchen and dining room is very rough outside, the straight up and down boards unpainted save for the window sash, but the interior is well-finished and painted, while the kitchen is most elegantly furnished with modern appliances, ranges, sets of drawers and so on, and attractively lighted with windows. The cabin containing the living room is attractively (Cont. p. 72)

70

Rancho Bantua, Bantua Creek,

c. 1000 ft.

No. 20,665. *Scirpus*

This sedge forms dense pure colonies in the very bottom of Bantua Creek along the running water, sometimes under water.

No. 20,666. *Solanum californicum* Dunal.

One bush, on bank Bantua Creek, about 2 mi. below ranch house. It was, interesting, here in this remote Coast Range cañon, to hear Lyle Christy speak of this as "Blue Witch". (See p. 81.)

No. 20,667. *Butierrezia bracteata*

Abrams. Bushes 1½ to 2½ feet high, forming extensive pure colonies on hill tops and ridges, "pure" in the sense of being the only woody growth on the dry brown grassland. The leaves are dark green and very resinous. The compact ^{very} shrubs or bushes make

sw. Fresno Co., May 21, 1942

71

definite spots of bright green against the dry brown grassland. It is probably a *Chrysothamnus* - but has no trace of last years inflorescence.

- *Cyperus*

See p. 81.
no. 20,700.

Eastwoodia

No. 20,668.

elegans T.S. Brandegee
det. A.C.B. 1953

This composite was noted in only one small colony; on the dry hills. Corollas yellow. Cont. p. 77.

No. 20,669. *Artemisia douglasiana* Bess.

Creek "bottom"; 4 to 5 feet high. Odor of "Wormwood".

No. 20,670. *Iva axillaris* Pursh.

Sandy "Creek bottom".

No. 20,671. *Pentstemon palmeri* Gray. Corolla pink, campanulate, the throat is the main part of "bell", the tube is the more constricted lower part. Upper lip

72

Rancho Santa Ana, Santa Ana Creek,

c. 1000 ft.

ventricose (concave within, rounded without) tipped by 2 short lobes. Lower lip cleft into 3 equal, elliptical lobes. Throat on lower ^{somewhat} side with many parallel longitudinal purple veins. Lower pair of stamens the longer, all glabrous, but the upper pair slightly pubescent at base.

Cont. on lower half page 73.

No. 20,672. *Cirsium*

5 1/2 ft. tall, branching;

corolla pink. Cañon bottoms.

No. 20,673. *Stachys ajacoides*

Leaves very large, very glandular. Leaves lightly villous or finely matted; stems spreading hirsute. Cont. p. 76.

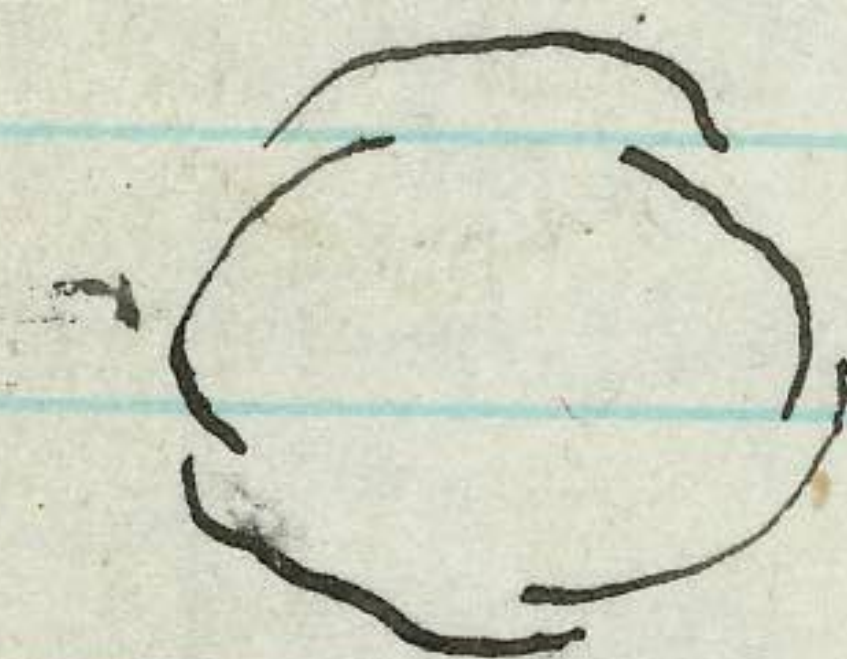
— *Salvia mellifera* Greene. Only one bush noticed. Other bushes noted later.

W. Fresno Co., May 21, 1942.

73

Cont. from p. 69. finished inside, the bath rooms are elegant with modern fixtures, the north and south sides of the cabin are provided with large screened porches, a grand piano stands in the living room and everywhere are comfortable chairs and upholstered lounge seats. All this is worth noting in a way because the contrast with this wild rough remote region is

so striking. ^{sterile} ^{stamen} densely yellowish hirsute on upper side towards apex; somewhat short-hirsute all the way down. Style glabrous, quite so, no "rusty hairs below" as said in Man.



Calyx aestivation.

74

Rancho Santa Ana, Santa Ana Creek,
C. 1400 ft.

No. 20,674. *Artemisia dracunculoides* L.

? Creek bench, 4 ft. h.

No. 20,675. *Brickellia*

Rounded bushes 3 ft. h.

The aroma of the bush is very pleasant and often fills the cañon air in a most agreeable manner.

No. 20,676. *Galium*

Climbing through bushes (Atriplex) to a height of 3 ft.

No. 20,677. *Glycyrrhiza lepidota*

Pursh

Forming dense pure colonies on creek bench. Calyx

2-lipped; upper lip cleft about half way; lower lip consisting of 3

equal lanceolate lobes. Calyx-lips

equal. Corolla parts equal!

Corolla, with banner embracing wings and keel, narrow.

Corolla white.

W. Fresno Co., May 22, 1942

75

No. 20,678. *Navaretia*

Corolla blue, the stamens inserted at top of tube or base of throat. Style 1 and entire; if cleft, cleft so obscurely or weakly as to evade the eye in fresh material under the dissecting lens. It may possibly be described as notched. Dry hillslopes. Calyx-lobes linear, 2 entire, 3 with a tooth on each side above the middle.

No. 20,679. *Eriogonum fasciculatum* Bth. var. *poliferum*

Colonizing hillsides.

No. 20,680. *Pellaea*

Gulch, north facing,

w. slope, under bushes

No. 20,681. *Pityrogramma triangularis*

(Kaulf.) Maxon var. *triangularis*

This fern on w. slope.

76

Cantua Creek, w. Fresno Co., May 22, '42.
c. 1300 ft.No. 20, 682. *Lastarrica chilensis* Remy

Low diffuse or semi-decumbent.

Hill slopes, open ground. The plants, some of them are still in flower.

The calyx-lobes are 3 shorter than than the other three. The 3 stamens have relatively large anthers and broad filaments shorter than the anthers, so short that one must dissect carefully to find them.

The Manual says "filaments with a membranous tooth on each side". Dissecting fresh flowers I am unable to see any teeth with the lower powers of my dissecting lens here in the field. See p. 77.

- 5 Facies

Cont. no. 20, 673.

The entire herbage, stems, petioles, blades are spreading-hirsute, the hairs soft, so that it might be better to say spreading-pilose, although

Cantua Creek, w. Fresno Co., May 22, 1942, 77

they are not very long.

Cont. no. 20, 668.

Heads discoid, the flower each subtended by an oblong bract with a thin or membranous edge, the edge very narrow. Pappus - paleae 6, lanceolate! Disk-bracts deciduous.

No. 20, 683. *Asclepias*

Creek bench. Decumbent. Cor. purple.

No. 20, 684. *Atriplex lenticularis*

9 feet high and 15 feet long. Creek bench.

No. 20, 685. *Atriplex polycarpa*

Creek bench. 7 feet high and 10 ft. broad.

- *Lastarrica chilensis* Remy.

Cont. from p. 76 (no. 20, 682.) One

flower showed filaments very well and the filaments appeared clearly to be without any teeth.

78

Mendota Plain, 4 mi. n. of
Cantua Creek, Fresno Co.

May 23, 1942

✓ No. 20,686. *Phalaris paradoxa* L.
(det. Beecher Crampton, 8/77)

This grass in a low spot
on the plain.

✓ No. 20,687. *Astragalus*
Faintly yellowish corolla.

Pure colony, 185' X 60 feet.

✓ No. 20,688. *Polypogon monspeliensis* (L.) Desf.
(det. Beecher Crampton, 8/77)

This grass in low spots
4 mi. n. of Cantua Creek, on the
Mendota plain.

Hills west of Panoche Valley,
May 23, 1942.

✓ No. 20,689. *Gutierrezia bracteata*
Abrams 16-20 inches high.

Forming extensive irregular colonies
over the rolling hills, the only
woody growth over wide areas.

- A broad-leaved composite
nearer Panoche Valley seemed to be
Isocoma. It was common, the

Panoche Pass, east side.

79

San Benito Co., May 23, '42.

same thing as Cantua Creek ranch.
(no. 20,663).

✓ No. 20,690. *Ephedra*

4-5 feet high.

Common on the dry hills, w. of Panoche Valley.

✓ No. 20,691. *Baccharis viminea*

DC. stream bed. Panoche Pass,
east side.

✓ No. 20,692. *Elymus triticoides* Buckl.
(det. Beecher Crampton, 8/77)

This grass in a pure
colony on a moist hillside
bank. Panoche Pass, east side

✓ No. 20,693. *Ribes quercetorum*

Greene Berry red, becom-
ing dark in age. Panoche Pass.

✓ No. 20,694. *Prunus ilicifolia* Walp.

Round-headed. 16 ft. h.
Panoche Pass.

✓ No. 20,695. *Cirsium*

Heads bright crimson;
branching very open! Leafage
below on main axis. 5-6 ft. h.
Panoche Pass.

80

Panoché Pass, e. San Benito Co.

May 23, 1942

✓ No. 20,696. *Bromus mollis* L.
(det. Beecher Crampton, 8/77)
This grass on east
side Panoché Pass.

✓ No. 20,697. *Bromus diandrus* Roth.
(det. Beecher Crampton, 8/77)
This grass with
no. 20,696.

Near Cottonwood School, Tree Pinos

Creek, May 23, 42. San Benito Co. 81

✓ No. 20,698. *Senecio brevis* Gray
Hill slope.

✓ No. 20,698a. *Godetia epilobioides*
Corolla pink! With
no. 20,698.

✓ No. 20,699. *Collinsia*
Wooded bank, n. slope.

✓ No. 20,700. *Cyperus* *Scirpus robustus*
Pursh.

May 21, 1942. Contra Creek Bottom.

See p. 71.

- Cont. p. 70. no. 20,666. "Blue Witch"
from
is my own invention, circa 1897.

82

Mt. St. Helena, east side,
(see itinerary p. 89).

✓ No. 20,701. *Fragaria californica*
Petals variously toothed
at apex or subapex.

✓ No. 20,702. *Whipplea modesta*
Woody stems decumbent
or trailing, the season's shoots
ascending.

✓ No. 20,703. *Oenothera parryi* Trel.

✓ No. 20,704. *Lupinus sericatus*
Kell. Cont. p. 84, at bottom.
Stems many from base, decumbent
with ascending ends, forming
a low clump. Leaflets decid-
uous from summit of petiole
by a joint, the summit of
petiole a little cupped. Petioles
persistent! and eventually
spreading or reflexed,
remaining attached to basal
or woody part of stem two

along Saint Helena Creek, June 9, 1942, 83
Lake Co.

or three years probably. Corolla
lavender, becoming sordid in press,*

✓ No. 20,705. *Torreya californica*
Torr.

✓ No. 20,706. *Elymus*
This grass, tall, slender,
in compact clumps. Open woods.

✓ No. 20,707. *Festuca*
This grass in somewhat
loose clumps. Open woods.

✓ No. 20,708. *Iris*
Lavender with large
yellowish green area on "sepals".
Open woods.

✓ No. 20,709. *Madia matricaria*
(Mitt.) Greene Rays 9, 9, 11. Open
woods; hilltops. Rays yellow.

* or in vasculum, more quickly than
in the case of any other *Lupinus* I
know.

84

Mt. St. Helena, along St. Helena Creek,
Lake Co. June 9, 1942.

No. 20,710. *Convolvulus*

Corolla pale cream, lavender
bands lengthwise on outside
longitudinally, one opposite each
division of the corolla. Colon-
izing a bank, almost mat-like
over areas 8 to 18 feet long
and 4 to 7 feet wide. Open
woods.

No. 20,711. *Galycanthus occiden-
talis*

Odor heavy and strong, like
must of a winery.

— *Lupinus sericatus*. Keel hairy
on inner margins except at apex,
especially above middle. Cont. 20,204.

85

Cobb P.O., Cobb Mountain, lower
slopes, w. Lake Co., June 9, 1942.

No. 20,712. *Geonothus integer-
rimus* H. & A. Frequent in the
Pinus ponderosa forest.

No. 20,713. *Viola*

Open *Pinus ponderosa* forest.
Petals yellow on upper side; back
of petals a little brownish, the
upper petal brown-purple on back.

No. 20,714. *Iris*

Low; in open *Pinus
ponderosa* forest; perianth light
purple.

No. 20,715. *Thermopsis*

Cor. lemon-yellow.
Open *Pinus ponderosa* forest.

86

Cobb P.O., Lake Co., June 9, 1942

✓ No. 20,716. *Galium*

Low plants, forming colonies in open *Pinus ponderosa* woods. Cor. lobes greenish-yellow, ovate, apiculate!

Hofergs, Lake Co., June 9, 1942

✓ No. 20,717. *Iris*

Purple perianth.

Low plants; open forest floor beneath *Pinus ponderosa*.

Siegler Springs, Lake Co.,
June 9, 1942

✓ No. 20,718. *Festuca californica*

This grass in heavy-based perennial stools.

✓ No. 20,719. *Festuca californica*

This grass in dense heavy-based stools, the leaves

87

bright vivid green. Leaves many in a dense compact tuft.

Howard Springs, Lake Co., June 9, '42

✓ No. 20,720. *Minulus guttatus* ^{fl.}
Border of meadow below

Howard Springs.

Siegler Creek, Lake Co.
June 9, 1942

✓ No. 20,721. *Allium*

Rocky (in winter very wet)

hillside.

✓ No. 20,722. *Lupinus*

densiflorus Benth. Cor. yellow.

Racemes 1-sided. With 20,720, forming a large thin colony all over the area.

✓ No. 20,723. *Orthocarpus*

lithospermoides Benth. Corolla yellow.

Only a few plants (with 20,720)

* This station is an unwooded
- over -

88

Saint Helena Creek, e. side Mount Lake Co.

hill point, on lower Seigler Creek (I suppose "lower", since it must reach Putah Creek very soon), on northerly side of wagon road. Not far below this point the road turns away from creek into hills over a low divide where one can see Middletown immediately below southwards. The Seigler Creek station is, I suppose, about two miles north of Middletown.

✓ No. 20,724. *Elymus*

This grass in open woods.

✓ No. 20,725. *Deschampsia elongata* (Hook.) Munro ex Benth.

This grass in a wet low place, open woods.

✓ No. 20,726 *Anthoxanthum odoratum* L.

Grass with loose stools. Perennial. Open woods.

Saint Helena, June 9, 1942.

89

Left Berkeley at 6:15 am. ^{cf. p. 82.} Drove to Calistoga, thence over the shoulder of Mt. St. Helena to the headwaters of Saint Helena Creek. Here in a cañon bottom were collected nos. 20,701 to 20,709. At this point, along the gulley bottom are fine plants of *Aralia californica*. Also *Parsonia densiflora*, *Pseudotsuga taxifolia*, *Cornus nuttallii*.

Through Middletown; thence we* turn northerly on the road to Lakeport. Beyond the turn-off, left, to Anderson's Springs, the road climbs past Cobb P. O. and on up the mountain to Hobergs. This country is high and is forested with *Pinus ponderosa* and an occasional Incense Cedar. In the pine woods we collect nos. 20,712 to 20,719.

These mountains are spurs of the ^{westerly mass} of the main Mayacamas ridge and

* Dr. H. M. Wheeler and myself.

90

Mount St. Helena to Siegler Spro.

are still heavily forested in the style of the open Sierra woodland. The spurs bearing *Pinus ponderosa* extend easterly nearly to Lower Lake. We turn easterly, off the Lakeport road, to Siegler and a mile beyond reach road forks, left Lower Lake, right Howard Springs, in perhaps two miles. We run through little vales, lush with green vegetation, to Howard Springs, a very old-time place. One or two miles beyond we turn right down the mountain side to the cañon bottom of Siegler Creek, and run along it until the stop at a winter-moorsy hillside described at * bottom of page 87. Thence to Middletown, Calistoga, Berkeley. We lunched at the summit of the mountain near Hobbs in

June 9, 1942

91

an open and very fine stand of *Pinus ponderosa*. In many respects it was like a similar spot in the Sierras. The odor of the pines is very grateful, and added to the satisfactions of an elegant lunch: hot asparagus soup from thermos bottles; roast chicken, apple sauce; fig preserves from figs derived from Little Oak; fresh milk; bananas, oranges, tartarian cherries, chocolate cakes; cottage cheese, and other things such as wheat wafers, of which I do not recall all.

"No. 20,727. *Pentstemon heterophyllus* Bth. Siegler Spro., Lake Co.

"No. 20,728. *Pickeringia montana* Nutt.

Mountain side between Howard Springs and Siegler Creek, Lake Co. Wonderfully floriferous!

92

- Dr. F. W. Hoover, Yakima Junior College, called about June 15. I was away and did not see him.

Berkeley, June 16, 1942

93

- Miss S. Baker called today. He said: "A small colony of *Trillium* *coccinea* grows on the lower slopes of Hood's Peak near my home, not very far away. It is, in this colony, of various colors, a plant or two of the lot being scarlet, but mostly the flowers are brown or dark purple. The perianth-segments are erect."

Baker thinks this colony is where ^{↑ F. J.} Bioretto got the original *Trillium* *coccinea*. But since only a plant or two is scarlet, Baker thinks the way for a hybrid between colony *Trillium* *recurva* and *Trillium* *lanceolata*, on account of the way in which the individuals aggregate. He says *Trillium*

94

Berkeley

recurva, the truly scarlet-flowered thing, always scarlet-flowered plant, is common in the chaparral on the upper slopes of Hood's Peak. He says it occurs northward also and that these plants he is unable to distinguish in any way from *Fritillaria recurva* in Shasta County. I myself suspect Bioletti may have collected the real *F. recurva* and that a slight variation in the flowers suggested the var. *coccinea* to Greene. At any rate this is certain: I myself collected *Fritillaria* with scarlet flowers near Saint Helena and named it *F. coccinea* under Greene's eye when I was quite new in Botany. That Greene looked upon this plant from Napa County

June 16, 1942.

95

and from Sonoma Co. (Hood's Peak) as *F. coccinea* is shown by his describing it in his *Manual of Botany of the Region of San Francisco Bay* (p. 310) as *F. coccinea* and makes no mention of *F. recurva* at all!

Baker has been botanizing about Plaskett Mtns., in the Coast Range, near or at least in region of South Yolla Bolly, at about 7000 feet. In this region he has found *Mimulus jepsonii*. Also *Fritillaria glauca*, a distinct yellow. *Collinsia rattanii* on slopes towards Corb. *Vicia bakeri*, first collected on Black Butte by V. Rattan, I think he said, he regards as a good species. Baker and I discussed the range of *Pinus murrayana*: he

96

Berkeley, California

has never seen it in the Blakely Mdw. region. I have never seen it in the Yolla Bollys. Probably the furthest s. for it is in the Salmon Mts., though I have no definite record, nor from the Trinity Mts. But Seward lists Trinity Mts. ~~near~~ I took Baker to a mid-day meal at the Faculty Club and we had further talk. V. Rattan was discussed as to his North Coast Range trips. Baker thought he took off from Stonyford in Glenn County. I asked how he knew that. He said he had read some account of Rattan's trips, but he could not tell me where. I remarked that Childs, Principal of the San Jose State Normal School, was with Rattan on at least one of his Coast Range trips. They went in a light buggy drawn by one horse.

June 16, 1942.

97

Baker said he knew Childs when he (Baker) was a student in the year 1887 at the State Normal School. Here was a point about Baker's early life I did not know. Baker says he gets *Viola premorsa* in Kern Co. Sierra. — D. T. McDougall just called. He says somewhere about 1892 or 1893 he investigated the tubers of *Isopyrum*; the vascular bundles form a plate, but the tubers which form over this plate do not reflect the shape of the plate. He wished to investigate *I. occidentale* and wrote to Greene at Berkeley for material. ^{H. L.} Greene politely replied that specimens were hard to come by but that he would remember the need or something to that effect. So, McDougall came with me to my lab. and I furnished

98

Berkeley, June 16, 1942.

him with a packet of the thickened roots of our species.

McDougal is on his way to the Forest Experiment Station at Placerville.

Little Oak, VacavilleJuly 9, 1942

99

No. 20,729. *Glycyrrhiza*

Keels and wings narrow-oblong, $\frac{3}{4}$ as long as banner (that is counting length above calyx-tube). Banner elliptic-ovate or a little broader, nearly 3 times as broad as wings and keel as they lie against each other. Corolla white. Colony at Gib Coburn's old place, in the front yard or what was once front yard; about 18 ft. by 12 ft.

— *Asclepias speciosa* Torr. Noticed a plant or two in the lane that runs west from the Vanden road, the lane that begins near Little Oak, about $\frac{1}{8}$ mile west from Vanden road*.

No. 20,730. *Elymus triticoides* Buckl.

This grass grows in
* or Brock Lane

Vaca Valley

100

a colony about 25 feet long on a roadside bank about $\frac{1}{5}$ mile east of Little Oak.

- I came to Little Oak on July 4.

- Came ^{again} to Little Oak, July 24. That strong, almost metallic glare of the straw-white fields and hills, universal in the bygone landscape, characterized with Vaca Valley a month ago. Now the hills have changed to a tan-color, a tan so engaging in the moonlight that it seems to have the quality of softness one feels in a glow and contrasts well with the dark crowns of the oaks. The crowns of the Buckeyes have now faded, the seal of poverty is on them - their foliage is now a sordid or

July 24-25, 1942.

101

dingy-brown under the summer sun - the most unlovely aspect of the tree in its year of change.

Saint Helena Sanitarium,Aug. 2, 1942.

Where Conn Creek joins Vaca Valley, that is, leaves its cañon bed for the valley floor, a hill point rises on south side with outcropping strata running from the floor up the slope. On this hill shoulder or ridge the blue oak (*Quercus douglasii*) is rather markedly gonated conformably to the outcropping ledges.

Conn Creek at this point is now quite dry!

On the margins of hay fields, where hay has been cut, in the riparian

102

Adam-and-Eve Ridge, Howell Mt.,
^{Aug. 4, '42}

at foot of old Howell Mountain grade,
the yellow-flowered or late summer
stage of *Eschscholtzia californica*
is now flowering - a sort of
fruition of the harvest - a harbinger
of autumn days with the full
heat going past.

" No. 20,731. *Navarretia*

Semi-open low chaparral,
west slope of Adam-and-Eve
Ridge, Howell Mt. Aug. 4, 1942

" No. 20,732. *Navarretia*

Semi-open Chameezy,
Adam-and-Eve Ridge, west slope
Howell Mt. Aug. 4, 1942.

Little Oak, Vacaville,
Sept. 17, 1942.

- *Hemizonia luyulaefolia*

The north hayfields at
Little Oak, the southwest hay

Little Oak, Vacaville, Sept. 17, 1942.

103

field, have come up rather
thickly to Hayfield Barweed!
This is reminiscent of sixty
years since. It is my rem-
embrance that in recent years
these fields after haying came
up to Yellow Star-thistle (*cen-
taurea solstitialis*). The tiny
hay plot, an acre and a half,
between the gum grove and the
fig trees came up densely this
year, after mowing, to *Centau-
rea solstitialis*. But mark this:

where hay cocks stood the
ground is quite naked of
the thistle! I suppose, there-
fore, germination was late,
that is about the time of
the haying. After the cocks
went off, the ground was too
dry for seeds to germinate. In
this region, here about Little Oak,

Little Oak, Sept. 21, 1942.

104

this species is most offensive. Opposite the front gate, in the lane, along the Dickie fence, it forms a dense heavy thicket four or five feet high! So it goes, all over the countryside.

Came to call this afternoon Dr. H. A. Heller, of Chico. He now has a married daughter in Vacaville and arrived Sunday on a visit. Learning that I was here he came to Little Oak to see us. We sat under the trees and he talked about his travels as a philatelist mostly. His ^{married} daughter Mildred goes with him on these journeys to various cities where new postage stamps are issued as "centennials" in celebration of some event in the history of the

Little Oak, Vacaville, Sept. 21, 1942.

105

city or as anniversary notice of some celebrity of the town. It seems that dealers in their first day ^{stamp} issues send orders for large numbers of stamps to the city where the new stamp is to be issued. In this way Heller gets much business. He is very proud of the fact that important dealers in the East send orders to him rather than to the professional dealers. Heller is tremendously interested in this stamp-collecting business and could scarcely talk anything else. Narrating a trip with a daughter was plainly a great pleasure; he dwelt on every detail and incident of the trip: it rained in the forenoon but was pleasant in the afternoon although it clouded up later. In

Little Oak, Vacaville

106

the time (maybe it was Boulder; Heller was never uncertain about details) there was no room in the auto camps, so they went to the hotels but all were full; next they tried a list of private houses which were available and in this way found accommodations. He went up the east coast from Florida to North Carolina and north and all the details of this trip were faithfully narrated. Dr. Heller has been at Panama and in Central America and the same sort of narrative regarding this region was enjoyed. He said almost nothing of the physical aspects of the country or its native vegetation - usually nothing at all - but rehearsed the incidents of travel and what Mildred said or did. It seems that on

Sept. 21, 1942

107

some, at least, of these trips Mildred always felt the children (her children) should see so and so at such a place. This necessity resulted in certain places being viewed, which otherwise would not have been seen.

Repeatedly an attempt was made to get him on to botanical subjects, with only partial success; but I learned: He has been in the Chico High School 21st years. This period was added to his period of teaching at the University of Minnesota, at the University of Nevada and at one other place, making a total which ^{now} permits him a state of California teacher's pension of \$41.50^{**} per mo. If he had taught forty years (or more) he would have been entitled to a flat pension of \$50.00 a month.

* he may have said 22. ** closely approximate.

108

Little Oak, Vacaville

Heller's memory, botanically, did not seem to be good. Continually I prompted him on such common generic names as *Lewisia*. Likewise he had difficulty in recalling the names of botanists. Once more I asked him to please finish up volume two of Muhlenbergia so that a title page and index could be had for binding the volume. The reason for his failure to do this came out. He printed Muhlenbergia himself on a small press which he possessed. About eight or ten years ago he sold the press for \$10.00 and the fonts of type and press furniture for \$10.00. He thought he would not need it again, the press, but has, at times, regretted selling it. Obviously there will be no more Muhlenbergias. Heller's talk

Sept. 21, 1942.

109

was a narration of incidents. Each incident had a climax or closing feature which was amusing or in some way quite satisfactory, because at the end of each of them he smiled in a satisfied way, having brought the matter to proper conclusion. This smile was a sort of little smirk, after which the next incident was begun. He was brought to Little Oak by a Miss Corner of Vacaville. Miss Corner sat by gravely, adding an occasional word of encouragement. After about two hours Miss Corner suggested it was time to go maybe. Dr. Heller looked at his watch for the time. It appeared they had plenty of time; Dr. Heller said he was thoroughly enjoying himself. At last I encouraged him to follow his own lead, which gave him great satisfaction. When

Little Oak, Vacaville, Sept. 21, 1942.

110

they finally did go, it was with evident reluctance on his part. In a way I regarded this as a great compliment. While I myself contributed little ^{to myself} to the conversation, scarcely anything, my guest was giving opportunity for as complete self-expression as possible. As to myself: he also serves who only sits and listens! — Sept. 21, 1942. I asked Heller in what way he traveled when in the Hugo region in 1905. To my surprise he said by bicycle! He made his headquarters mainly at a hotel at Lanes on the railway. Certainly he accomplished a great deal with only a basket on his bicycle for carrying things! Undoubtedly he entered the region by rail.

111

— Cont. from p. 197 near foot. This "flat" is the "lake flat" where the California Botanical Society camped in (about) 1921. The altitude is 1300 feet acc. Carl Purdy. See ante 38: 116 g.

112

- To a friend, taking up new reading:

113

That is a fine diversion you have taken - The Life and Letters of Charles Darwin! The outstanding thing is, as you suggest, not Darwin's monographs or theories, but the man himself - his amazing intellectual honesty, the directness and fairness of his scientific methods, his receptivity to the views of others, his complete freedom from anything that savors of personality. Happy hours and wise pondering! - Vaca Valley, Sept. 22, '42.

- Cont. p. 114. On the original map of this district the name was spelled Araquipa.

114 Arequipa* Hills, Vacaville

Drove to F. W. Buck place and left car. Met Tate and Ralph Tate with me. Circled along base of hill to right and entered Osage Cañon. No sign of Osage tree in foot of cañon now. Noticed base of plant of *Chlorogalum pomeridianum*; its fibrous coat. Ralph Tate recognized it as Indian Soap Root.

Entering the cañon the following oaks are noted: *Quercus douglasii*; *Quercus lobata*; *Quercus wislizenii*. On the south slope of the cañon (i.e., right hand side) the stand of trees is scattered, very much thinner than on the north slope which is much protected from the sun. On the whole the trees on the south slope tend to average larger than on the north slope.

In spite of less favorable

* See bottom p. 113.

Sept. 24, 1942 (Thursday).

115

moisture conditions, trees have more room and on favorable sites have opportunity to grow larger. Shortly after entering cañon, a large *Quercus douglasii* shows up, high on the south slope. (By south slope, of cañon wall, is here meant the slope facing the sun, sloping to the south.) This tree* is photographed by Mr. Tate.

Arbutus californica is now in dormant state, leafless, - and is on the north slope from near the base to just below summit of cañon. The Blue Oaks, mature trees, appear to have, as saplings, grown to about 5 or 6 feet before branching; and then developed very wide-spreading

* *Quercus douglasii*. trunk 10 ft. circ. 3 ft. Trunk branches at 5½ ft. Height = 45 ft. Crown 75 ft. wide.

116

Arequipa Hills, Vacaville

arms, almost horizontally spreading! At the head of Osage Cañon is a fine large Cottonwood (*Populus fremontii*) tree, - a single individual - 75 feet high. All the way up the cañon to the open meadow just under divide, *Quercus lobata* has been frequent with no diminution in size. Near the head of the cañon (but below the "open" in which stands the *Populus fremontii*) is a *Quercus lobata* tree 60 ft. high, 65 feet broad crown, trunk diameter 3 feet at 2 feet above ground, - all figures estimates by the eye at a little distance. Near this point is noted one small dwarfed shrub *Photinia arbutifolia*. (Cont. p. 117*)

We bend to left at head of cañon, go to top of lateral

Sept. 24, 1942.

117

ridge, thence along it to main divide, and along main divide until we find ourselves in a sort of hollow just under the north side of Duff Point - the highest point in the Arequipa Hills.

Just below Duff Point, on the north slope are two clusters of trees on the otherwise bare slope: lower cluster: *Quercus lobata* tree, 45 ft. high, crown 50 ft. broad, trunk 8 ft. 10 in. at 4 feet (a Buckeye stands alongside it), the tree next above (their crowns nearly touching) has a trunk 10 ft. 9 in.

- Cont. from p. 116 at *. About here, too, looking backward to south slope of Osage Cañon a very very glaucous Blue Oak tree was noted. Rather near bottom of cañon. It may have been a young tree.

118

Arequipa Hills, Vacaville

circ. at 4 ft., the crown 40 ft. broad, the height 50 feet. The cluster up the slope a short distance above the first cluster consists of two *Quercus lobata* trees, fairly large mature trees with good thick trunks. They are old trees and very large for the situation, that is on very brow of Duff Point. So here it is to be remarked: the Valley Oak, a tree most characteristic of the alluvial valley floors, enters the hills and ascends to a higher point than any other in these hills!

We tarry a bit on the summit of Duff Point to consider the view. In order to shade Mr. Tate's camera, Ralph picks from the ground near the topographic survey bench work a square piece of plywood. He

Sept. 24, 1942

119

does not notice beneath the board a thick rattlesnake. At once I spot the rattler and call to him. He comes back and kills the snake and takes it home.

On the skyline of the lateral ridge, near Duff Point, stands a *Quercus lobata* tree, old and fairly large: trunk 9 ft. 10 in. at 4 ft; 26 feet high. ^{Photo by Mr. Tate} From this tree we swing left down into the very head of the main Hawkins cañon. The head of the cañon is treeless, densely grassy, the dead grass now pale tawny. All through it on the slope are the scattered silvery rosettes of the Turkey Mullain (*Eremocarpus setigerus*) studding the tawny grass in the swale below Duff Point. Scattered through the grass, too, are indi-

120

Arquiza Hills, Vacaville

individuals of *Lagophylla romo-*
sissima (no. 20,738). The south
 wall (north slope) of Hawkins Cañon
 is the steepest in this little range
 of hills, — and its woodland is
 the densest. Here, with *Quercus*
wislizenii and *Quercus douglasii*
 and *Aesculus californica*, are a
 few scattered individuals of
Quercus morehus, the individuals
 quite unlike in leafage. We saw
 about half-a-dozen trees altogether.
 One tree was seen in Osage Cañon
 (no. 20,736). Near the beginning
 of the woodland towards head of
 Hawkins Cañon a live Oak attracted
 my eye by reason of its large
 cupped leaves and by its seem-
 ingly some on one-year wood.
 (No. 20,739). This must inevitably
 be *Quercus agrifolia* — never

Sept. 24, 1942.

121

before reported from the inner
 North Coast Range. The few
Quercus morehus trees we saw
 were all below the Coast Live Oak
 tree and very much scattered (No.
 20,470). *Photinia arbutifolia*
 was noticed seven or eight times,
 one or two fine individuals.
 Also one *Rhus diversiloba* shrub
 and one *Arctostaphylos man-*
zanita (16 ft. high). One *Photinia*
 13 ft. high.

Speaking broadly the woodland
 of the Arquiza Hills is composed of
 four arboreal species: Interior Live
 Oak, Blue Oak, Valley Oak, Cali-
 fornia Buckeye. Broadly speaking
 shrubs are absent. Chaparral
 shrubs are wholly absent, but
 there exists an extremely thin
 and limited
 representation of chaparral — border-

122 Arequipa Hills, Vacaville

woodland shrubs - just a few individuals in the ecologically most favorable situations.

✓ No. 20,733. *Centromadia rudis* ^{= *Nemophila parryi* ssp. *rudis* (Gray) Keck.}

On the very base of the hills, Osage Cañon.

✓ No. 20,734. *Asclepias mexicana* ^{= *A. fascicularis* Benth.} Cav. In very bottom of Osage

Cañon gulch. Note broad leaves.

✓ No. 20,735. *Quercus lobata* Neé.

Osage Cañon.

✓ No. 20,736. *Quercus morehus* Kell. Osage Cañon.

No. 20,737. *Quercus lobata* Neé. Leaf-typer from two different trees. Osage Cañon, head of.

✓ No. 20,738. *Lagophylla ramissima* ^{See top p. 120.}

✓ No. 20,739. *Quercus agrifolia* Neé. See bottom p. 120. Head of Hawkins Cañon.

Sept. 24, 1942.

123

No. 20,740. *Quercus morehus* Kell. Hawkins Cañon.

In Hawkins Cañon I lost a heel from my right shoe. The hills are ^{now} extremely slick with dry grass and in the woodland part with both dry grass and dry leaves. The dry leaves are especially slippery. The south wall of Hawkins ^{Cañon} is quite steep, 35° or 40° gradient and it is ^{in many places} extremely difficult to come down it ^{at this time,} even with the best of shoes. Unluckily the nails in soles of my shoes had become worn and the loss of a heel made footing impossible. Several times I had severe falls down the sharp slope. No bones were broken nor was my back or shoulders

124 Arquiza Hills, Vacaville, Sept. 24, 1942.

injured; but finally I gave up and Ralph Tate went down to the car at the base of the hills and brought back a pair of "rubber" shoes. With these I got along very well. (cf. Happy Days at Little Oak Ranch, 2:40.)

Vacaville, October 20, 1942

The following plants were collected in the bed of the Alamo ^{at the bridge} near the Frank Dickie place (former Foree place). When I was a lad I botanized along the Alamo. The portion of the creek below the bridge was grazed clean by intensive grazing of cattle. There were no flowering plants and I do not recall a tree. Now the creek walls have a good many trees (cottonwood and willow) and many smaller plants forming

Vacaville, Oct. 20, 1942. 125

patches of green in the bottom or along the water's edge. There are also some shrubs. Above the bridge for two hundred yards the area was like a corral in the old days; now it is, relatively speaking, a jungle.

✓ No. 20,741. *Cyperus*

Creek bed.

✓ No. 20,742. *Iva axillaris* pursh.

Creek walls and swales

running down into creek. Not occurring out on the plain in this region.

✓ No. 20,743. *Rosa californica*

In addition to the above there was *Baccharis viminea* (not in fl. or fr.), never seen here when I was a lad. Also *Helenium* ^{puberulum} in fl. *Melilotus alba* is fairly frequent, tall, lank, open, almost

126

Vacaville, Oct. 20, 1942

leafless or sparingly leafy, growing out of fl. Near it are broad bushy densely leafy plants, no inflorescences old or new, but apparently *Melilotus alba*. The leaflets are entire or so nearly entire as to be noticeably different from ordinary herbarium specimens which are rather uniformly serrate; serrate, markedly so! The leaflets are notched or obscurely notched at apex. This is: No. 20,744. *Melilotus albus* Desf. ^{Depr.}

See notes above. *Alamo Creek* fld. ^{Specimens collected late in the season tend to be less serrate & sometimes almost entire (leaflets).}

Berkeley, October 28, 1942.

There has come to Berkeley from Turlock, to be in the Freshman Class, a young student, Robert J. Rodin*. A son of a lawyer at Turlock, I find him intensely interested in botany.

* See * p. 127

Berkeley, Oct. 28, 1942

127

Formerly his family was at Eureka and he went out into the field under the guidance of Joseph P. Tracy, my former student. **

** This young fellow Rodin, ever since last October, has saluted me on the street or campus whenever seeing me. Today he called to me in the corridor of Life Sciences Bldg. He was in uniform, has enlisted in the Marines, will graduate in October. - Sept. 5, 1943.

* from p. 126. He told me simply his surname. Later I wished to have his given name and it cost considerable trouble to get it, since his name is not ⁱⁿ Students Directory of last year. It was my desire to give him a copy of my biography of S. B. Parish, which I did, a biography which should

128

Berkeley, Oct. 28, 1942

interest a young botanist. He is further along as an undergraduate than I thought. Says he will take his bachelor's degree in one and one-half years or a little over, if not drafted into the army.

Corn Valley, Napa RangeNovember 1, 1942

Came to Corn Valley today with Mr. Roscoe Wheeler and his daughter, Dr. H. M. Wheeler for a visit at the ranch of Arthur Lavine Wilcox and his wife Rachel Wilcox. The ranch (Corn Ranch) is in the foothills east of the valley; 600 acres; vineyard and sheep range.

We went out for a walk in the hills and I expounded the native oaks to the party. The Blue Oak all over the hills; the Coast Live Oak, quite frequent; the

Corn Valley, Napa Range,

129

Nov. 1, 1942

Valley Oak, mainly on the north slopes of gulches near the bottom, or in swales, sometimes becoming a large tree. The first ^{Valley Oak} individual found, a fairly large tree, struck me, as to its leafage, as if it were the Oregon Oak (*Quercus garryana*) (which does occur on Howell Mountain 4 or 5 mi. N.), the subincised character of the lobes and the shining upper surface of the leaf. The sheep and squirrels had taken the acorns - but by persistence some of the party found two nuts on the ground, and, of course, there were plenty of cups. This evidence was wholly in favor of the Valley Oak (*Quercus lobata*), namely,

No. 20,745. *Quercus lobata* Neé.
See note above. Yankee Creek.

130

Corn Valley, Napa Range

After crossing two gulches and stream beds northerly from the ranch house, we turned down stream and entered the heavily wooded bottom of Yankee Creek, in which is a living stream, tiny but moving. Hard by a wood-cutter's cabin on the first bench above the stream bed are buckeye trees heavily draped with *Vitis californica*. One trunk of the *Vitis* was 4 inches in diam. for five or six feet from the ground. In various places there was an array of main stems 1 to 2 inches in diameter forming four to eight feet above the ground most interesting patterns of the organism that was strangling the buckeye crowns above: curious, bizarre, strange. It seemed, as I regarded it, that no assemblage

Nov. 1, 1942

131

of trunks so extensive had ever met my eye before — but, memory and judgment and observation may be at fault. *Vitis californica* has been familiar to me since a lad in my native valley and I may have seen colonies of this vine in Lake Co., or in the San Bernardino Mts. later, without special impression being made on my mind.

"No. 20,746. *Vitis californica* Bth.
Yankee Creek.

"No. 20,747. *Calyculthus occidentalis*.
Yankee Creek.

— Along Corn Creek in the cañon between Napa Valley and lower Corn Valley are occasional *Populus fremontii* trees. One tree was also noted on the naked hillside in a shallow gulch between the bridge over Corn Creek and the entrance gate to

132

Corn Valley, Napa Range

Corn Ranch.

Undoubtedly when botanizing Corn Valley in my early years, as I did frequently, these Cottonwood trees met my eye. They made no ^{particular} impression. Right across the ranges, about twenty miles eastward, I had known Cottonwood trees since a child. In recent years it has been recorded in my field books that there are no *Populus fremontii* in Napa Valley. Now do I know of any. But since they occur along Corn Creek in the hills east, one would suppose that the abundance of seed carried downstream would establish trees along Napa River.

No. 20,748. *Populus fremontii* Wats. Corn Creek bottom, below Corn Crossridge. cf. p. 133.

Nov. 1, 1942.

133

— Mr. Arthur Wilcox, the rancher is a ~~Kan~~ well-informed rancher, and a good discussion was had on the oaks of his ranch. The Valley Oak makes a poor fuel; the California Black Oak, *Quercus kelloggii*, the best fuel; Blue Oak (*Quercus douglasii*) a good fuel. He finds in the ground old Blue Oak trunks which have rotted completely down to the thick central core which is round and very flinty.

— The winter buds of *Populus fremontii* are now enlarged and turning green. cf. p. 132.

The visit to Corn Valley will ever remain vividly in memory. The little valleys in the hills are always friendly and heartening. And when to this is added welcome so engaging as that offered by the Wilcox ^{family} one's nature

134

Corn Valley, Napa Range, Nov. 1, 1942.

brings with restful contentment. With Mr. Wilcox I was much impressed as a man of force - candid, straight-forward, straight thinking, square dealing - and a man probably of high ideals. A fine type of farmer.

Berkeley, Nov. 3, 1942.

Dr. David Goddard, one of my former students, called today. He is now a professor in Botany, University of Rochester. For a note of this call see Men and Manners, vol. 14, p. 177, and vol. 15, p. 160.

135

Berkeley, Nov. 9, 1942.

- Mr. J. Francis Macbride of the Field Museum, Chicago, called today. We fell to discussing genera, evaluation of genera and Macbride argued well the point as to usefulness of genera; that genera might be formed on highly technical grounds and have no usefulness. My approval of this view was confirmed by urging that botany should not be thought of as belonging to botanists alone; that botany belongs to the world as much as physics or chemistry.

Macbride is working on his Flora of Peru, now being printed by the Field Museum. - Nov. 9, '42

Macbride told me much of his work in Europe photographing types. 40,000 and over of them! He got out the types at a given herbarium and arranged

136

Berkeley

him for photographing. He employed a photographer to do the actual photographic work. In order to get a good one he was obliged to guarantee six months work or three months at least. Before the actual work began at a place, he had to visit the herbarium, always in advance if possible, make friends with them, explain the importance of the work and secure their co-operation. This was not always easy to do. At Berlin, while Ludwig Diels, the director at the Botanic Garden was friendly and cooperative, some Curators in his various departments, such curators being very jealous of authority in their own walls. Macbride was very desirous of securing

November 12, 1942

137

scraps of types to go with the negatives. When the herbarium had duplicates stored away he wished to have duplicates sheets and often secured such. At Berlin he impressed most men by pointing out that it was highly desirable the work of the Royal Botanic Garden and the species sponsored by the Garden should become well known to American botanists and the botanists of the New World. While at Berlin, he made an advance trip to Macbride, "to prepare the ground", - so that when he arrived later the way would be clear for him to go ahead. Practically all botanists regard his work in securing plant type photographs as very important. At Har-

138

Berkeley

ward, M. L. Fernald wrote: When we use these prints we bless the name of Macbride - Nov. 12, 1942. cf. also certain personal matters in regard to Macbride's relation with the Field Museum in Men and Manners, vol. 14, p. 179. One day (Friday, Nov. 6) I took Macbride to luncheon at the Faculty Club. It developed that I walked too fast for him; so I slowed up, as we went along. Since my stride is naturally quick, it was necessary another day for me to slow up.

- Today, Dr. C. B. Wolf, Rancho Santa Ana Botanic Garden, came to study Cupressus material in my collection. Took him to a mid-day meal. Had good talk. - Feb. 26, '43.

- Chas. M. Rick, division of Truck Crops, Davis, called at my lab. on Feb. 12, '43. Had him to luncheon. See his letter 2-23-'43.

April, 1943.

139

- Dr. H. A. Gleason, New York Botanic Garden, was here in Berkeley about two weeks ago. As soon as I learned that he was here I went at once to the Berkeley Inn where he is stopping. Did not find him but left a written invitation to dine with us. He was, by reason of a prior dinner engagement, unable to accept; and left Berkeley the next morning. So I did not see him. - Dr. Edgar Anderson^{of Saint Louis} is here in town. I have invited him and Dr. Ledyard Stebbins to a mid-day dinner next Wednesday. - Friday, Apr. 16, 1943. For various remarks made by Anderson at this luncheon, see Men and Manners, vol. 15, p. 62.

- In November, 1942, David Goddard of the University of Rochester called on me. See a note of his visit in Men and Manners, vol. 15, dated Aug., 1943, p. 160.

140

Vaca Valley, April 10, 1943.

- drove to Vaca Valley Saturday morning,
April 10.

✓ No. 20,749. *Epilobium parvulatum*
Nutt. Seedlings in orchard at
Sharpe ranch. Millard Sharpe says
the Chinese eat the leaves as a
salad, believing the plant to be a
specific for eye trouble.

✓ No. 20,750. *Bromus rubens* L.

(Det. Beecher Crampton, 8/77)

This grass in stools in the
orchard at Sharpe ranch.

Elmira, Solano Co., Apr. 12, 1943.

✓ No. 20,751. *Minulus tricolor* Hartw.

Considerable colony, $\frac{3}{4}$ mile s.
of the village, in low swales where
water has stood during the winter,
colonizing an acre more or less.

Binghamton, 2 mi. s., Solano Co.

Apr. 12, 1943.

141

✓ No. 20,752. *Orthocarpus attenuatus*
Gray.

✓ No. 20,753. *Orthocarpus erianthus*
Bth.

✓ No. 20,754. *Filoverkea rosea* Hartw.
Low fields and ditches.

Petals notched, bearing 4, 6 or
maybe 8 solitary horizontal hairs
at middle of petal. The hairs
are set in 2 rows, with 3 or
4 hairs in a row, ^{transverse} equably spaced and
forming a sort of loose web.

Petals whitish turning a little pinkish
in drying.

✓ No. 20,755. *Ranunculus aquatilis* L.
Ditches.

✓ No. 20,756. *Damasodium californicum*
 Torr. Ditches.

142

Cacho Slough (upper end),
eastern Solano Co., Apr. 12, 1943.

✓ No. 20,757. *Lasthenia glaberrima* DC.
Swale, forming a very dense
close stand.

✓ No. 20,758. *Layia platyglossa* Gray.
Grassy plain.

✓ No. 20,759. *Bentanea calcitrapa* L.
Main Prairie, Apr. 12, 1943.

✓ No. 20,760. *Lasthenia glabrata*
Lindl.

— At Main Prairie on the banks of
Cacho Slough is a thin line of
Quercus lobata trees. It is, from
the standpoint of exposure to the
ocean winds from Suisun Bay an
unfavorable situation, but happy
as to water and soil. *Fraxinus*
oregana is here. Also *Cornus calif-*
ornica G. A. Mey. Also *Populus frem-*
ontii Wats.

143

Moraga Ridge, Oakland Hills,
Contra Costa Co. April 24, 1943.

No. 20,761. *Luzula*
Open (north) grassy
slope.

✓ No. 20,762. *Senecio sylvaticus* L.
Fine-gravelly shale on summit
of ridge. Pubescence light or thin,
consisting of soft or curly hairs
and of very short stiff spreading
hairs which are often a little
glandular! The involucre are a
cylindric or near-cylindric when
very young, or rather when in
anthesis; but soon become marked
by jug-shaped. Rays: 9, 10, 12.

✓ No. 20,763. *Ceanothus sorediatus*
H. & A. Extremely floriferous; a bush
or shrub 10 ft. h. and 15 ft. broad
in a swale near top of ridge.

✓ No. 20,764. *Sanicula laciniata* H. & A.

144

Berkeley, Apr., 1943.

on Apr. 16, 1943 (see ante p. 139)
 - when I met Dr. Edgar Anderson, Engelmann Professor of Botany, Washington University, in the course of conversation he said (in the presence of Dr. J. L. Stebbins, Univ. Cal.):
 "He [Professor W. J. V. Osterhout] was morally, ethically and emotionally objectionable! He was morally rotten. No student should ever have been exposed to his evil influence."
 I cannot now recall what reaction this denunciation had at all to the general subject of the conversation. Certainly the statement was not caused by anything I said. Anderson did not know that I knew the man, so far as I know.

Gater Cañon, Vaca Mts., Solano Co.

Sunday, Apr. 25, 1943.

145

- No. 20,765. *Solanum xanti* Gray.
 Brushy slope.
- No. 20,766. *Aristolochia californica* Torr. Vigorous vine climbing over shrubs to a height of 10 or 12 feet and forming a rather marked drapery of leaves. In fruit. Brushy slope.
- No. 20,767. *Iris douglasiana* Herbert. Perianth a luminous light tan-color; cream-color is fairly near as a term. Using Ridgway's nomenclature of colors it is seen that "cream-color" is nearer than any other shade of yellow. Northeast wooded slope; common.
- *Calochortus pulchellus*, common; forms beautiful little pictures on the wooded slope. Now in full fl!

146 Little Oak, Solano Co. May 2, 1943

The hills wonderfully green for May 2! No touch of brown yet anywhere. I return to Berkeley May 5.

Hunter Hill, Benicia Hills, May 5, Solano Co., 1943.

no. 20,768. *Orthocarpus attenuatus* Gray.
Open grassy slopes.

Common. fl. 4 lines long. See p. 148.

no. 20,769. *Layia platyglossa* H. & A. Open grassy slopes

forming colonies which cover $\frac{1}{16}$ of a mile. See note below.

no. 20,770. *Bellardia trixago*
not common. See notes on pp. 147, 148, 149.

- *Layia platyglossa* H. & A. Rays 8, 10, 13.
Ray fl.: no pappus; stipe or tube of corolla, contracted basal portion, pubescent with short spreading hairs; blade or lamina of ray egg-yellow with white tip, the white extending

Hunter Hill, Benicia Hills, May 5, '43. 147

slightly below the lobes; ovary glabrous, completely encased in bract. Disk fl.: ovary densely hairy; pappus, 1 long bristle on each side $\frac{3}{4}$ as long as corolla, 1 or 2 shorter bristles in intervals; corlobes densely covered with short gland-tipped hairs! Cor.-lobes markedly apiculate! Anther column jet-black. Bracts of receptacle membranous, oblong, acute. no. 20,769.
↑ broadly

- *Bellardia trixago* L. Cor.: lower lip orbicular, 8 lines long. Calyx $\frac{1}{2}$ as long, cleft more deeply in front than behind, the lateral lobes deeply notched. no. 20,770.

- Professor G. J. Peirce of Stanford here today. He called at lab. at some time but I did not connect with him.
- May 7, 1943.

148

Hunter Hill, Benicia Hills, Solano

- *Orthocarpus attenuatus* Gray. no. 20,768.
Bracts: cleft half-way into slender lobes. Calyx: its 4 slender-linear lobes (a little over $\frac{1}{2}$ as long as calyx-tube*) white on upper half, approximate on lower side of flower. Cor. whitish, pubescent, the teeth (membranous) of lower lip almost as long as membranous galea.

Lower lip: little distended. Lower pair stamens the longer. Stigma capitate, greenish. Ovary glabrous.

- *Bellardia trixago* (no. 20,770). Cor.: middle lobe small, inflexed.

Lower lip with 2 prominent ridges lengthwise, consisting of folds of the lower lip.

* Counting as "tube", part below lobes; this "tube" cleft about $\frac{1}{2}$ way down on upper side.

Co., May 5, 1943.

149

- *Bellardia trixago* no. 20,770. Anthers hairy, the style recurved at tip with the stigma lying against the clustered anthers. Upper filaments slightly dilated (flattened), the lower filaments markedly dilated below. Cor. white, the upper lobe pinkish. Bracts ovate, acute or attenuate.

Berkeley to Berryessa Valley,
May 15, 1943.

Left Berkeley by auto with Mr. Roscoe Wheeler and Dr. H.M. Wheeler. Drove to Garquinez bridge, thence to Wooden Valley and Steel Cañon; thence to junction of Sage Cañon road and Steel Cañon road near Berryessa Valley. Here in meadow I find a plant that seems strange; rosette of basal leaves only. No. 20,837. See p. 165. *Populus fremontii* (Cont. p. 163.)

150

Berkeley to Berryessa Valley and

No. 20,771. *Lomatium*

Dry grassy hill, 2
mi. n. of Oak Grove School, Berry-
essa Valley.

No. 20,772. *Wyethia angustifolia*
(DC.) Nutt. Rays 19, 14, 14, 15. With 20,771.

No. 20,773. *Calochortus luteus* Dougl.

Dry grassy hills, with no. 20,771.
- *Navarretia*. (With 20,771). See no. 20,837.

Knoxville Ridge, Napa Co., May 15, 1943.

No. 20,774. *Melica californica* Scribn.
(det. Beecher Crampton, 8/77).

This grass in rock pile.

No. 20,775. *Calochortus* ^{*amabilis* Purdy} ~~*pulchellus*~~
Dougl. Bulb larger than in no.

20,793. See p. 152. Bushy rock pile.

No. 20,776. *Sphacel calycina* (Bth.)
Epl. Rock pile; bushy slope

No. 20,777. *Pityrogramma triangularis* (Kaulf.)
Maxon var. *triangularis* This fern in rock pile

Knoxville Ridge, Napa Co., May 15, 1943.

151

No. 20,778. *Fremontia californica* Torr.
var. *napensis*

Same as 20,781, 82, 83. Only this number
kept for JEPS

No. 20,779. *Festuca eastwoodae* Piper
(det. Beecher Crampton, 8/77)

No. 20,779a. *Festuca microstachys* Nutt. (Mixed with above)

No. 20,780. *Echeveria Dudleya*

Rocky outcrop.

No. 20,781. *Fremontia californica* Torr.
See 20,778 with 20,778. Same as 20,778. LRM

No. 20,782. *Fremontia californica* Torr.
See 20,778 (Same as above) with no. 20,778.
- *Calochortus pulchellus* Dougl.

Sepals with short points, not
spreading rotately or stellately
as markedly as in the Vaca
Mountains plant. Petal only
slightly glandular-hairy above
gland. On very rocky slope,
bushy, on Knoxville Ridge. I
did not notice that sepals in age
became quill-shaped.

No. 20,783. *Fremontia californica* Torr.
With 20,778. (See 20,778)

152 Knoxville Ridge, Napa Co., May 15, '43.

No. 20,784. *Cupressus*

Small colony; erect, slender,
about 12-15 ft. h.

- This country of the Knoxville Ridge,
now in spring garb, is at this time
very attractive. A beautiful day of
pleasant temperature adds to the
pleasures of collecting.

- *Calochortus pulchellus* Dougl. no. 20,793.
Low wooded hills near Lakeport.

Sepals narrower than in no. 20,774
(sub-ovate-lanceolate), soon be-
coming quill-shaped. In no.
20,774 they are more broadly
ovate or round-ovate and
with shorter points, though
sometimes spiculate.

Near Morgan Valley, Sr. Lake Co.,
May 15, 1943.

153

no. 20,785. *Allocaarya*

Almost pure colony of
an acre in wash.

Lower Southern Slopes, Mt. Konoti,
Lake County, May 15, 1943.

No. 20,786. *Salvia sonomensis* Greene.
Colonies 10 to 25 feet broad,
forming mats (continuous and
pure) with the inflorescences
rising almost as thickly or even
more thickly than stalks in a
corn-field. Now in full flower.

Colonies continue for several
miles! in opens in the brush,
rough rocky country

- *Ceanothus integerrimus* H. & A. See
p. 163.
No. 20,787.

With 20,786, in dry flat.

This nodoid plant not common
here.

154

Scott Valley (wooded hills on its borders), near Lakeport, May 16, 1943.
Lake Co.

No. 20,788. *Filago californica* Nutt.
dry flats.

No. 20,789. *Microseris lindleyi*

No. 20,790. *Agoseris heterophylla*
Heads in fl. 5-6 lines wide. Annual; grassy slopes.

No. 20,791. *Bromus carinatus* H. & A.
(det. Beecher Crampton, 8/77)
Grass in wooded open.

No. 20,792. *Sanicula*

No. 20,793. *Calochortus* ^{amabilis Purdy} ~~pulchellus~~
Drogt. See page 152.

No. 20,794. *Silene californica* Durand
Cor. crimson.

No. 20,795. *Elymus glaucus* Buckl. var. *jepsonii* Davy
(det. Beecher Crampton, 8/77)
This grass has about
30 culms in a stool.

No. 20,796. *Senecio*

No. 20,797. *Elymus glaucus* Buckl. var. *jepsonii* Davy
(det. Beecher Crampton, 8/77)
This grass with 20,795

155

Scott Valley (low wooded hill borders) near Lakeport, May 16, 1943.

No. 20,798. *Wyethia angustifolia*
(DC.) Nutt.

-Mt. Konetti rises gradually eastward from Kelseyville. Near its summit on the westerly slope is a wood or grove of trees. Since there are no trees on the mountain elsewhere this stand seemed peculiar. It lies at the summit of a large bare area. Mr. Wilfrid Stice of Lakeport tells me the grove of trees consists [Cont. p. 165]

- *Gastilleia* no. 20836.

Fl. 1 in. long; galea exserted from calyx, the calyx $\frac{4}{5}$ or $\frac{5}{6}$ as long as cor.; bracts $\frac{3}{4}$ as long as calyx, cleft about midway or rather 3-lobed about midway, the lobes crimson, the body green, strongly 3-ridged on back. Fl. falcately curved, esp. below. Calyx twice as deeply cleft in front (Cont. p. 156)

156

Valley at foot of Mayacamas Range,
c. 2 1/2 miles west of Lakeport.
Lake Co.

No. 20,799. *Psilocarphus tenellus* Nutt.
var. *tenellus*
Valley flat.

No. 20,800. *Danmus pusillus* Michx.
Openly wooded hillslope.

No. 20,801. *Calandrinia ciliata*
~~canadensis~~
var. *menziesii* (Hook.) Macbr.

Prostrate; valley flat.

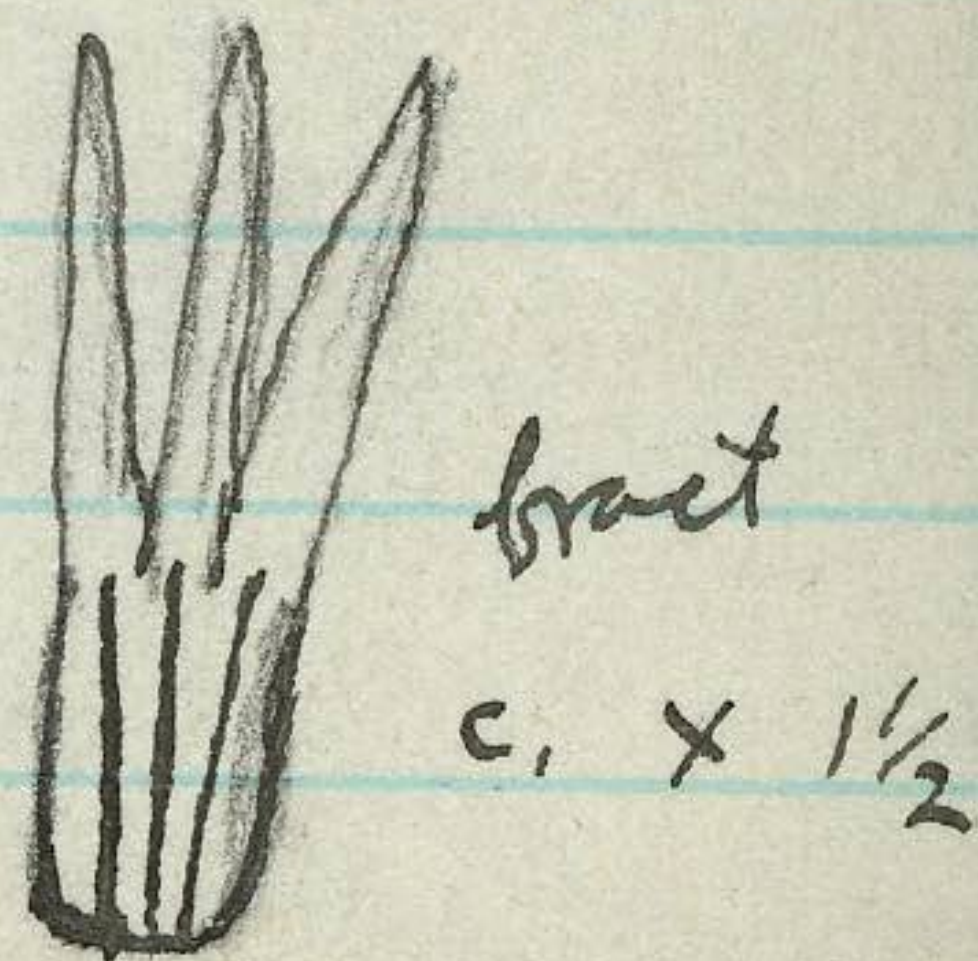
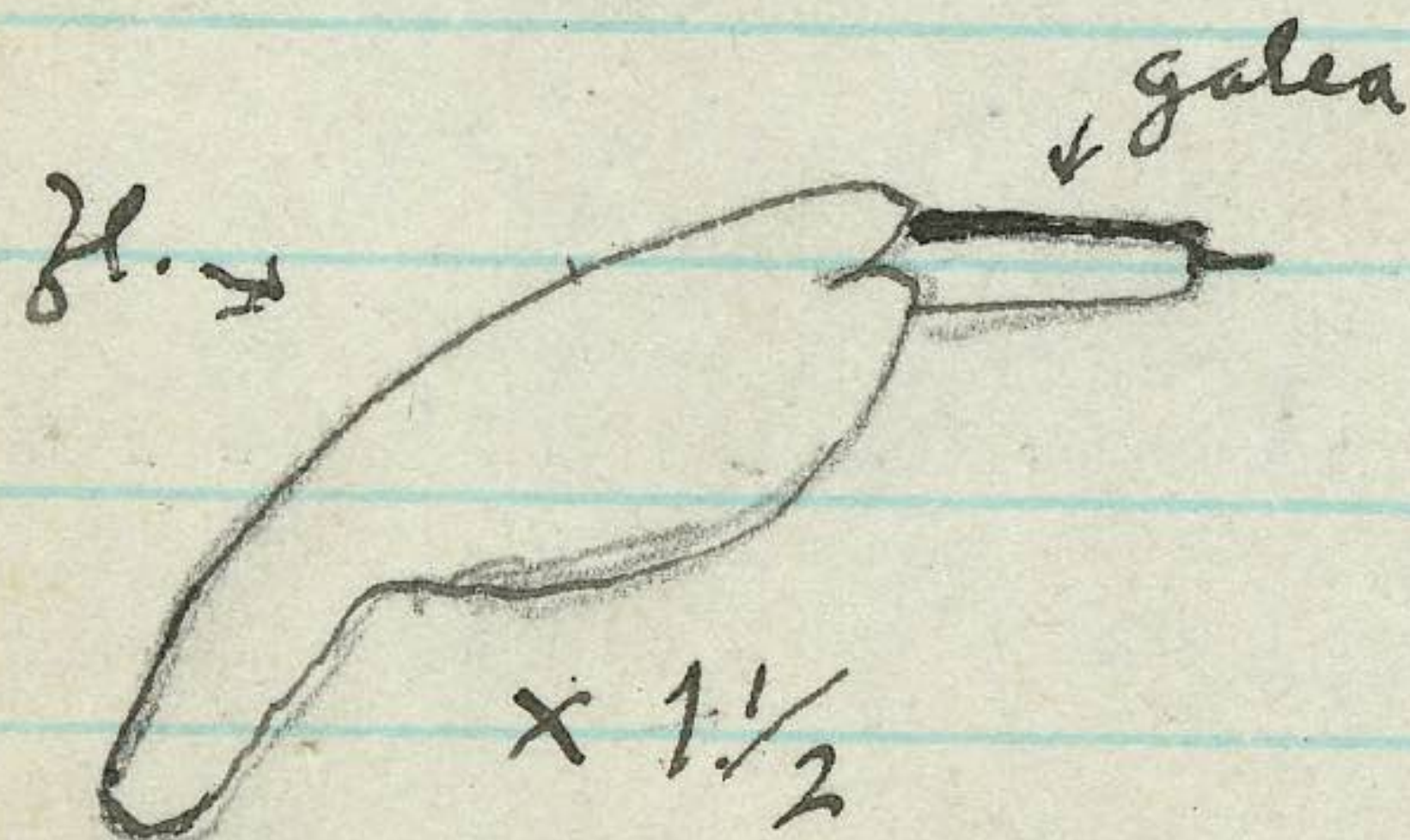
No. 20,802. *Platystemon californicus*
Valley flat. See p. 163.

No. 20,803. *Trifolium gracilentum* T. & G.
Valley flat.

- *Populus fremontii*, on Scott Creek.

- Cont. from bottom p. 155.

as behind, the lobes crimson, the
uncleft portion narrow, greenish.
Stems solitary or 2 or 3. Note sterile bracts at base.



Stamens; cor. inside; glabrous.

157

on Scott Creek (upper narrow
Scott Valley).

May 16, 1943

No. 20,804. *Orthocarpus attenuatus* Gray.
with 20,799

No. 20,805. *Cnicus benedictus*

See p. 162. With 20,799.

- *Minuartia* no. 20828.

Cor. crimson; upper lobes erect, the
notch between lobes rather deep. Lower
lip short, its 3 lobes short and
spreading. Throat with purple
blotches; 2 oblong yellow spots on
lower side (more or less purple-
dotted). Lower part of throat
yellow with purple dots. Tube and
throat.

No. 20,806. *Collinsia bicolor* Bth.

Wooded hillslope (steep).

No. 20,807. *Rafinesquia californica*
Steep slope.

158

Lakeport, Lake Co., May 16, 1943.

No. 20,808. *Orthocarpus lithospermoides*
Fields near Clear Lake.

No. 20,809. *Achyrocline mollis*
With 20,808.

Highland Springs, Lake Co., May 16, 1943.

No. 20,810. *Sidalcea diploscypha* Gray
Open hillslopes.

No. 20,811. *Pentachaeta*
dry open hillslopes.

- *Astragalus* no. 20,814.
Cor. white; banner notched apex, its
sides reflexed, the keel and wings
slightly shorter. Fl. 4 lines long.
Calyx black-hirsutulous, $\frac{2}{3}$ as
long as cor.

No. 20,812. *Clarkia*
~~*guttata*~~

Highland Springs, Lake Co., May 16, 1943.

No. 20,813. *Wyethia glabra* Gray
valley flat near Highland Sprs.

159

Low rocky hill, junction Hopland
road and Highland Sprs. road, 2 mi.
S. of Lakeport, May 16, 1943.

No. 20,814. *Astragalus breweri* Gray
See p. 158.

No. 20,815. *Cryptantha*

No. 20,816. *Orobancha fasciculata* Nutt.

Individuals frequent
but much scattered over rocky slopes.

Upper lip cor.: shortly cleft into
2 ovate-acute or triangular-acute
short lobes; lower lip cor.: its
lobes narrower, more acute, the
throat below the sinuses produced
into ridge-like folds inside the
throat. Cor. pale or straw-yellow.
See 4 anthers approximate,
woolly; upper pair of stamens
shorter. Stigmas 2, triangular-ovate.
Corolla inside,
filaments, style glabrous. Fl. $1\frac{1}{4}$
inches long.

160

Low rocky hill at junction Hopland road and Highland Sprs. road, 2 mi. S. of Lakeport, May 16, 1943.

Lake Co.

No. 20, 817. *Streptanthus*

See p. 161.

No. 20, 818. *Delphinium variegatum* T. & G.

Very abundant.

No. 20, 819. *Clarkia*
~~*Godefrida*~~

No. 20, 820. *Sidalcea diploscypha* Gray

Glen Eden School, near
Scott Valley, May 17, 1943, Lake Co.

No. 20, 821. *Madia*

No. 20, 822. *Madia gracilis* (Smith) Keck

No. 20, 823. *Delphinium nudicaule*
T. & G.

No. 20, 824. *Wyethia angustifolia* (DC.) Nutt.

No. 20, 825. *Trifolium bifidum* Gray

No. 20, 826. *Eriophyllum*

161

Glen Eden School near Scott Valley, Lake Co., May 17, 1943.

No. 20, 827. *Alisma plantago* L.

In a swamp or low flat with vestiges of a lake at one end, forming a continuous colony of about two acres. The only species. An impressive assemblage of it. Have never before seen so much. 2 1/2 acres.

— *Streptanthus* no. 20817.

Cor. white, the 2 lower petals with a central purple spot. Cor. "bilabiate" ^{↑ petals} arranged, 2 upper, 2 lower. Calyx globose, 5-ridged strongly opposite each lobe, an extra ridge in interval on lower side, sometimes a weak extra one in interval on upper side. Upper pair of stamens the longer, their filaments united to summit; lower pair shortest; lower pair intermediate. Calyx jug-shaped.

— *Delphinium nudicaule* and *Coris occidentalis*, Glen Eden School.

162

Headwaters of Cold Creek, Mayacamas Range, Mendocino Co.

No. 20,828. *Mimulus kelloggii*
Curran Steep openly wooded
slope. See p. 157.

No. 20,829. *Diplazium aurantiacum*
(Curtis) Jepson.

No. 20,830. *Silene californica* Pursh.

No. 20,831. *Calochortus* ^{amabilis Purdy} ~~fitchii~~
~~rough~~

no. 20,805.

Inner involucre ovate, consisting of
many closely imbricated ovate glab-
rous bracts, all the shorter
outermost ones ending above in
a divergent pinnately divided spine.
Outermost lobes ending in a soft
or slender simple spine. Cor.
yellowish, bilobate; upper lip
cleft half-way into linear lobes,
lower lip cleft to base into 2
linear lobes. Cor. greenish-yellow.
low.

163

May 17, 1943.

- Cold Creek is a rather fine
stream of water. I wonder a bit
at the amount of water. It runs
into the East Branch Russian River.

- Cont. from p. 149 at bottom. The com-
mon Cottonwood, occurs between
Garrison Valley and Wooden Valley.
Along Eticuna Creek north of Berry-
essa Valley *Cercis occidentalis* is
abundant.

- *Populus fremontii* Wats. Cold Creek.

- Cont. from p. 153. The great brush
fields which everywhere clothe the
slopes of mt. Konocti are notable.
Everywhere within view, along the route from
Lower Lake to Kelseyville, *Ceanothus integ-
errimus*, in full flower now, is an impor-
tant constituent of the chaparral.
(cont. p. 166.)

- *Platystemon californicus* Bth.
upper $\frac{1}{2}$ or $\frac{1}{3}$ of petals yellow.
no. 20,802.

164

Pieta, Russian River, Mendocino Co., May 17, 1943.

No. 20,832. *Wyethia glabra* Gray

No. 20,833. *Wyethia angustifolia* (DC.) Nutt.

— *Calochortus pulchellus* Dougl. A single stem with 20 flowers in a cluster. Pieta, near.

No. 20,834. *Wyethia angustifolia* (DC.) Nutt. X *W. glabra* Gray ? Hybrid between 20,832 and 20,833.

No. 20,835. *Osoarea physodes* Dougl. Colony 20 feet

diameter, with interlocking under-ground system of slender rootstocks; extremely long (1 to 3 feet) rootstocks

Near Echo sta., Russian River, S. Mendocino Co., May 17, 1943.

165

No. 20,836. *Castilleja*

See p. 155.

— Cont. from p. 155. of planted walnuts! They have grown well, do well, bear crops. On the mountain there is no water, no streams or brooks, no springs. The lava-porous soil absorbs all rainfall and there is no runoff. The trees were planted by a man named Howard, I think he said. Howard has a home high on the mountain not far from the walnut area — but all water for home use is hauled up the mountain.

No. 20,837. Vegetative rosette — discarded? For locality see p. 165. ?

No. 20,838. *Navarretia pubescens* (Benth) H. & A. For locality see p. 150. det. G.T. Robbins

166 Cold Creek to Berkeley,

From Cold Creek (p. 162) we drive to Ukiah Valley, thence south along the river road

-Cont. from p. 163. Re. *Ceanothus integrissimus* H. & A. Looking southward from the wagon road over the southern spur of Mt. Konocti one observes, not far away, the easterly spurs of the Mayacamas Range, the easterly foothills or ridges joined to the main northerly-southerly axis westward, and on them a zone of conifers, mainly *Pinus ponderosa*. In other words this display of *Ceanothus integrissimus* is not far away from *Pinus ponderosa* stands. Indeed, at one time, in 1880 and before, *Pinus ponderosa* was common along this road, in association with

May 17, 1943.

to Pieta (p. 164), Alexander Valley, Napa Valley and Berkeley.

167

the *Ceanothus integrissimus* we see here. Of course *Pinus ponderosa* never extended up the slopes of Mt. Konocti in all probability.

Little Oak, Vaca Valley

May 25, 1943

Watered my young orchard trees and grape vines. Country still very green, although the hills mainly brown on south slopes. Black gnats!

168

Mt. Diablo, Contra Costa Co.,

- Drove to Mt. Diablo with Dr. Edgar Anderson, Engelmann Professor of Botany in Washington University. An account of this trip is in a letter to Dr. H.M. Wheeler; see Jepson Correspondence, May 28, 1943.

✓ No. 20,839. *Filago*

Loose soil. Black Hills.

✓ No. 20,840. *Carduus*

This thistle in the grass lands on steep slopes; near Black Hills.

✓ No. 20,841. *Allium*

Wooded north slope, n. side of Black Hills.

✓ No. 20,842. *Festuca californica*

This grass with no.

20,841.

May 27, 1943

169

✓ No. 20,843. *Cirsium*

Panicle widely branching. Flowers lavender-pink. High on mountain. 2 1/2 to 3 1/2 ft. h.

- Some notes of Dr. Anderson's remarks on this trip: cf. Men and Manners, vol. 15, p. 61.

170

Berkeley, June 1, 1943.

- Today Dr. G. L. Stebbins at the Faculty Club for ^{I was the guest of} luncheon. He has been working on our *Solanum* aliens (which I regret not knowing before, for sake of the H.L. Cal. no.) and says that *Solanum nigrum* are really *S. nodiflorum* Jacq. ^{Four plants called} *S. furcatum* Dun., an alien is here, confused with *S. douglasii*, but occurring on the San Mateo coast just north of *S. douglasii* ^{range} and again in Humboldt Co. (Tracy) and perhaps in between. The plant we call *S. villosum* in Cal. is *S. sarachoides* Sendt.

- Dined today (June 2, 1943) at the Black Sheep with J.C.O. Sauer (Prof. of Geography) and Dr. Edgar Anderson, as guest of latter. Anderson is much entranced by the colonies of *Adenostoma fasciculatum* (and the sharp boundaries)

Berkeley, June 2, 1943. 171

showed him on Mount Diablo. He wished to know the reason for these sharp boundaries*. I said: Sometimes the bounding area is water-logged; but that is an explanation which applies to only one side of the colony maybe and may not apply at all to another colony. *Adenostoma* must always have high drainage.

Sauer wanted to know how our Madroño got across the desert from Sinaloa. Presumably he was referring to the main body of *Arbutus* species in Mexico.

The matter of alien weeds in Cal. came up. I remarked that of most of our European or Mediterranean weeds I had never been able to find their prototypes wild in Europe. Sauer suggested that a highly localized

* Often the tension-line is limited to a yard or so.

172

Berkeley

strain might by chance have been introduced and so responded mutationally or luxuriantly to the new conditions. Sauer asked about the plants. Of course they are widely spread over the earth, following man very closely. But probably they come from northern Europe and have changed not at all or little.

In my laboratory Anderson was shown the illustration of Chamise root-crowns in Fl. Cal. 2: 220. As he read the descriptive matter he noticed the marginal note: It dispossesses Arctostaphylos manzanita - see an important note in Fl. B. 52: 186-187. So I turned to the field book* and read the description of the dramatic manner in which Chamise ^{in Colusa Co.} took possession of Arctostaphylos manzanita ^{areas} and of oak border country. This field
* year 1932.

June 2, 1943.

173

study made in 1932 near Rodoga in western Colusa County is highly instructive. It is greatly to be regretted it did not get into the Flora of California account of the species in 1936 ^{cf. Men + Manners 15: 72-73.} This oversight was due wholly to the fact that field books no. 50 on, ^(or I may have overlooked it.) were not indexed at that time. In the vast mass of material* which I accumulate ^{(or some other way)!} it was missed in that way.

Sauer referred repeatedly to the unsatisfactory nature of Standley's Trees and Shrubs of Mexico. He especially criticized lack of habitat for species. The habitats, as given in my Manual, he considered satisfactory. I think they can be vastly improved if a second edition be possible.

We talked also about Juglans

* Cont. p. 178.

174

Berkeley, June 2, 1943.

hindsii in relation to its Indian village habitats.

In relation to the crown-sprouting of *Adenostoma fasciculatum*, I referred to the Santa Barbara ^{National} Forest fire of about 1936 when foresters reported a fire of extreme intensity - low humidity, north wind, high temperatures, high insolation - in which the effect on the vegetation was furnace-like and even such shrubs as Chamise were completely destroyed! They did not crown-sprout. Whereupon Sauer remarked ^{in his belief} that those conditions - low humidity, high temperatures, intensely drying winds were a decisive factor in the distribution limits of species. He thought one might be surprised at the loss of water by the plant under such conditions, ^{a loss which} reduced the plant tissues to a degree that astonished me.

Moraga Ridge, Oakland Hills, 175June 3, 1943.

- This afternoon I took Professor C. S. Sauer, Department of Geography, Dr. Edgar Anderson of Washington University, Dr. G. L. Stebbins of our College of Agriculture to Moraga Ridge to see the xerophytic chaparral on the Claremont shales. Highly interesting to both Sauer and Anderson were such types as *Pickeringia montana*, *Dendroica rigidum*, *Adenostoma fasciculatum*, *Pinus attenuata*. Sauer, while we were traveling through the upper San Leandro basin, asked about the range of *Acer negundo* var. *californicum*, and I indicated its general range. (I record it in Fl. Cal. as on San Leandro Creek, meaning, I think, somewhere near San Leandro Town. But is it not on upper San Leandro Creek? that is, below Moraga Ridge? Perhaps my records show). There was a

176

Moraga Ridge, Oakland Hills,

good deal of talk about *Castanopsis chrysophylla* var. *minor* and its relation to *Lithocarpus densiflora* of California and of southeastern Asia, especially as to the ^{acorn} cup. We found young colonies of *Pickeringia montana*, that is, thrifty crown-sprout growth which looked entirely different from the usual adult form.

One looks across the cañon of upper San Leandro Creek to the east slope of the next ridge - densely wooded with Redwood, Madroño, Big-leaf Maple, Coast Live Oak. What is the nearest relative of the Big-leaf Maple? Consider the many species in China; the many species in Asia minor region. Of these we have little herbarium material. *Baccharis pilularis* comes in for some notice. I find myself "rusty" on

June 3, 1943

177

Moraga Ridge. When taking forest-botany students to the area, for thirty years, I knew almost every individual on the ridge. It is my remembrance Big-leaf Maple is on the east slope - a bit of it. It was a remarkably fine day for the field. "See", said Dr. Anderson, "the cloud shadows and the sunshine on those green and gold hills eastward". It was surely a stunning sight.

On the return to Berkeley, my guests thanked me. Sauer said he had never before been to Moraga Ridge! Anderson said: "God did a swell job as to the weather, but you did an even finer job in putting us on the ridge."

? Neotti

178

Berkeley

— Continued from p. 173 at *. This "miss" was unfortunate because more important than any of the matter which I put into the Flora under *Adenostoma fasciculatum* as to the field notes. This incident has an interest in connection with my discovery of the peculiar nature of the embryonic panicles in certain species of *Arctostaphylos* on Howell Mountain in the fall of 1915. A brief note was made in my field book at the time. So, ~~embodied~~ in a vast mass of notes, I did not pick up this matter again until the fall of 1936 when I noticed the peculiar panicles again on Howell Mt., made a trip into Lake Co. to get material of other species, and showed the whole, — a stunning show of material without flowers or fruit — to a large group of graduate students

June 7, 1943.

(c. Oct. 1936)

179

gathered in my laboratory, purely as a demonstration of the possibilities of new and fruitful observations that can be made in the field in examining well-known species at unusual times. At the time this demonstration was made I had no remembrance of having made a record of the first discovery in 1915 until I looked it up. In the vast mass of material accumulated for ^{preparing} my Manual, endless notes were not used. There was not time. One of these notes overlooked related to these embryonic panicles. This valuable lead was not used in my Manual or in my papers on *Arctostaphylos* printed in Madroño. See a comment on this matter in Men and Manners, vol. 15, pp. 73-74.

180

Moraga Ridge, Contra Costa Co.

— Drove to Moraga Ridge via the tunnel and Orinda Corners.

No. 20,844. *Pickeringia montana* Nutt.

This species was in good flower five days ago and is still in good flower. There are many buds on the shrubs still. The bushes which make a show are the old or fully mature bushes which have developed distinct trunks or lower stems and very angular-branched dense crowns. The flowers are sufficiently abundant over the crown to make, in the case of colonies, purple spots in the chaparral on a hillside.

About midway on the ridge are many young colonies of *Pickeringia montana*, young in the sense of being new growth from the root-crowns, highly luxuriant growth, and quite unlike the old

June 8, 1943.

181

growth in aspect. The tops were rather open, consisting of new shoots arising from dense growth below. Only a few flowers are borne in such colonies and those inconspicuously within the bush. Such flowers are mostly solitary, rather than in clusters, as if racemose, on the ends of the branchlets as in the mature bush.

Dr. H. M. Wheeler today tries cross-pollinating, to see if fruits can be set. In all my years on this ridge I have never seen a bush with fruit. Nor do I recall, just now, ever having seen fruits on a bush anywhere in the Coast Ranges or Sierra Nevada. We note today that the flowers fall very readily, soon after anthesis. The stigma appears ^{as a} very restricted area, quite small, really minute. Under

182

Moraga Ridge, Contra Costa Co.

a compound microscope, in one case it seemed minutely microscopic and curved, but in other cases minutely discoid. The stigma in no case seemed functional, but may have been.

The stamens in the bud are 5 long and 5 short, the anthers of the longer stamens just topping the anthers of the shorter stamens. In anthesis the stamens are approximately of the same length.

— *Pinus attenuata* Lam. On a tree which it was possible to climb, about midway of ridge, west of wagon trail, I mutilated the terminal set of cone circles on several axes, excising all save one. It is my idea to see if this excision results in a different development of the remaining cone,

June 8, 1943.

183

especially as to cone scales, but also perhaps as to size. — On a tree near the one referred to I noticed a terminal axis with 5 spaced circles of cones of the season (formed this season, young "mubbins"), the cones in the circles varying from 1 to 3. — Further down the ridge, on east slope, near and just below ^(east) wagon trail, stands a cluster of Knobcone Pines that are very striking, from the luxuriance of their cone-bearing! The terminal shoots of one tree, in the production of cone-circles this season, reflects this virility, this super growth-force, this intensive reproductive impulse. Three terminal axes show the phenomenon of which I set down merely preliminary details: namely beneath the terminal bud the cone circles are congested,

184

Moraga Ridge, Contra Costa Co.

not spaced as normally, but com-
pacted into a globose cluster!
This is the first time I have seen
this phenomenon in the catkin
or young cone (of the season) stage!

The three globose clusters are of un-
equal size as to number of cones
in each cluster.

No. 20,845. *Rubus vitifolius* C. & S.

A colony on northeast slope
of ^{Moraga Ridge} near the foot of trail that goes up the
hill at north end (the trail through
brush up the last ascent to sum-
mit of Moraga Ridge).

No. 20,846. *Agoseris plebeia* Greene.

Broken ground, c. midway of ridge.
Ligules burnt amber or red-brown,
slightly shorter than or slightly ex-
ceeding the involucre. Involucres 6
to 7 lines broad.

June 8, 1943

185

— *Arctostaphylos glandulosa*
On Moraga Ridge are two
shrubs, mixed in the same brush
area, same habit, stature, in
every way much alike, save: (a)
one is green in its leafage, the
leaves truncate at base, the
stems a little spreading-hirsute.
(b) The other is grayish a bit in
aspect, the leaves subcordate at
base, the stems markedly spread-
ing-hirsute (hairs longer and
denser than in "a"). The leaves in
the two are essentially same
size and shape save as noted
above. The foliage in a is a little
more crowded on stem than in
"b". Both are now fruiting.

No. 20,847. *Amica*

Northwest slope in
the woods.

186

Morongo Ridge, Contra Costa Co.
June 8, 1943.

- *Arbutus menziesii* Pursh. Considering the subsoil, Claremont Shale, there are a few fine trees on the easterly slopes, mostly in swales. One rather fine tree now shows its crown covered with new full-grown leafy shoots, dark green foliage, and beneath each tuft of green is a bunch of red or red-brown, the old leaves ^{that were} turned downward into a close bunch when the new shoots came. The crown is, for this reason, very interesting just now. These old leaves will hang there until about July or August as I remember.

No. 20,848. *Elymus glaucus* Buckl. var. *jepsonii* Davy
(det. Beecher Crampton, 8/77)

This grass on nr. slope in woods.

No. 20,849. *Agrostis hallii* Vasey
(det. Beecher Crampton, 8/77)
This grass with 20,848.

Berkeley, June 12, 1943

187

- Took Dr. Edgar Anderson to the Block Sheep for luncheon today. He said that he had been to Tiburon on the Marin shore and that he found a higher percentage of the native vegetation on the grassy slopes about the white Catholic church (on the bare hillside area) than he had noticed elsewhere in California. I have botanized several times on this slope, but since I have seen in many places ^{plant formations with} a high percentage of the native vegetation, the Tiburon area did not impress me especially. It is a very rich spot in the number of native species found there. Driftless, the population, as elsewhere, varies from year to year. Anderson was taken to Mt. Tam-

188

Berkeley, June 12, 1943

alpeis by John Thomas Howell and Allan
 Beetle. He was much interested in the
 various phases of habits of *Umbellulidina*
californica, the large trees in their
 Woods, the wind-clipped trees higher
 up the mountain; in *Adenostoma*
fasciculatum with a less range of
 variation in its inflorescence than on
 Mt. Diablo; in *Cupressus Sargentii*.
 Anderson has been to the ^{California} Academy
 and called upon Miss Alice Eastwood,
 the curator in botany. Howell told him
 a story, namely that at Christmas
 time each year, as long as ^{Charles S.} Sar-
 gent lived, Miss Eastwood sent
 to Sargent a box of the fragrant
 sets of *Cupressus Sargentii* as
 a Christmas ^{sending,} an offering of his
 very own cypress as she ex-
 pressed. Anderson thought this
 a very nice thing to do - which
 it certainly was. He also thought

Berkeley, June 12, 1943.

189

it a fine thing for a botanist to take
 time off to be a human being!
 Which is also most admirable (cf. Men
 and Manners 15:140; see also index to vol. 15).
 Anderson leaves here about June 17 for
 Pasadena. He has corn cultures going
 at Temple City, east of Pasadena
 four or five miles. One of his
 great plans is to cross a primitive
 maize type* from Chili with some
Tripsacum species, and then cross
 back the hybrid to the Tex
 stock repeatedly. He says a
 cross between Tex and *Tripsacum*
 has already been made in
 Texas by scientists there. It
 would antecedently seem im-
 probable but it has, apparently,
 been confirmed by repetition.

* Sargent collected corn cobs in excav-
 ations in northern Chile a year ago -
 at least 1000 or 1500 years old are
 the cobs. He also brought seed from
 living corn not far away; corn which may
 be descended from the "fossil" corn. This
 if grown will form Anderson's stock primitive.

190

Berkeley, June 14, 1943.

Called this morning Dr. Carl Epling of U.C.L.A. and his young colleague Lewis. The two are growing *Delphinium* in the garden down there. They have all the local spp. Crosses have been made of nearly all spp. with hybrids resulting. Some hybrids are fertile. Lewis says of our most common species, *Delphinium variegatum*, that north of the Bay, in Napa Valley, and so on, it is diploid; on west side San Joaquin Valley it is tetraploid. But otherwise the plants cannot be told apart. Epling queried me about *Delphinium recurvatum* Greene as to Greene's collecting habits. *D. recurvatum* grows on ^{the} west side foothills of the San Joaquin Valley from Antioch to McKittrick.

Berkeley, June 14, 1943

191

It has not been found at Antioch, although a glabrous form of *D. hesperium* (^{the normal form is} common there) is found there; that is, the glabrous form is found there with ^{a little of} the abundant usual form. Could Greene have gotten this glabrous form of *D. hesperium* and mistaken it for *D. recurvatum*? Did Greene mix Antioch and Byron labels as Epling. Did Greene live at Antioch and range out as far as Byron asks Epling? And other similar questions. I reply:

Greene used ^{only} public means of travel. He went to Antioch by train, botanized around Antioch and returned to Berkeley. He could have stopped over night at Antioch. He usually stopped over night at the tourist hotel

192

Berkeley

on such trips. He went to Byron similarly and stopped over for a week end. He never went on an expedition in which he was independent of the country people. He never penetrated a real wilderness unless a stage or railway line ran through it.

Could he have mixed labels? asks Epling. I reply: "An unfair assumption as to a particular collection in Greene's case. He was careful about his labels.

A collection was labeled up as a collection from a given locality. I cannot recall a single collection of Greene's which is mislabeled. His labels are brief, contain insufficient data, but he always put down locality, date and collector on a label. He never put down such a

June 14, 1943

193

place name as "Dry Creek" and let it go at that. ^{Cartwright Greene} I said with the colleagues of this day - the men and women here in California whose plants in such numbers lack a date, a locality or both; who use most obscure place names.

[I did not mention the name of T. Brandegee who used so many obscure place names. I mentioned T. Minis Mill to Ralph Hoffman of Santa Barbara. Said Hoffman: "He thought everybody knew where it was". How could he think so? It was merely a small sawmill buried in the forest in Lake County. In a few years it no longer existed. Even Brandegee himself could not tell where it was!! He

194

Berkeley, June 14, 1943.

Brandegee, had no sense of historical perspective; there was no feeling for the decades or ages past or those to come. As a scientist he was defective to this extent.

Vaca Valley, June 16, 1943.

A warm but fine day.

Berkeley, June 17, 1943.

While I was away yesterday Dr. W.S. Lawrence of the Oregon State College called.

Berkeley, June 22, 1943.

Called this morning:

Andrew Rodgers^{III}

30 S. Dawson Ave.,

Berley,

Columbus, Ohio.

whom I took to dinner at midday at the Black Sheep.

He knows well John W. Bricker, Governor of Ohio, and many

Berkeley, June 14, 1943.

195

other Ohio notables, with whom he became acquainted by virtue of his law practice. He said Bricker had made a most ex-

cellent governor of Ohio but he ^(Rodgers) evaded committing himself as to his promise for President of the U.S. Re. this

war I asked about the future.

Rodgers said the present young generation would never see happiness again as we had known it in the past. As

to Rodgers' interests as a biographer of botanists, see my letter dated June 22, 1943, to H.M. Wheeler, in Japan

Correspondence. Les Hesperieux's name came up. Rodgers says it is pronounced La Cru (or La Crew) by his family and others at Columbus.

196 Moraga Ridge, Contra Costa Co.
June 19, 1943.

No. 20,850. *Arctostaphylos*

Leaf-blades subcordate at base. Sheets "A" and "B" from separate bushes.

No. 20,851. *Arctostaphylos*

Leaf-blades truncatish or obtuse at base.

— *Castanopsis chrysophylla* var. ^{B.H.} minor

The juvenile flower panicles are now fully formed; these panicles which are to flower next winter in, perhaps, Feb., must have been formed last Feb. It occurs to me that no exact record has ever been made of the full period of these ♂ catkins in this Chinquapin. Cf. my letter to H.M. Wheeler, July 15, 1943, Jepson Correspondence.

Head of South Mill Creek, Ukiah, July 18, 1943. 197

Left Berkeley at 7:00 am., July 18, drove through Napa Valley and Knights Valley to Cloverdale; thence by river road to Talmage in Mendocino Co., thence into South Mill Creek Cañon to Purdy Terraces. Found Mr. Carl Purdy at home. He has aged (is now 82) and his eyesight for objects a few yards or rods away has failed him. It was my hope to have him go with me to Red Mountain but he would not able to make out terrain a few rods or more away. But he went into his office and putting on glasses readily wrote out for me trail directions. All the Red Mountain region he knows well, having lived in these mountains forty-five years or more. I return to "Foot of Hill";

(cont. p. 111 ante)
park my car in a flat and prepare for the trail. I take a right hand road at this point, follow it nearly to a bridge, ^{leave road,} ascend hill to right to a grassy flat, pick up

198

Trail to Cedar Mt. ^{See 1941} from head of South
Hill Creek, Mayacamas Range.

trail at westerly end, keep on climbing and finally come out on top of the lateral ridge (ss.-nw.) and follow it until it joins the divide between Mendocino Co. and Lake Co. The divide here is low. The "trail" I am following to Red Mt. has been out of use for thirty-five years maybe and is overgrown or obliterated by wind and weather. I keep southerly along this ridge. One great difficulty is to pick it up in crossing over a grassy area or a "cañon" swale. I finally come down into a low pass or "valley" (probably Purdy's Lost Valley). Here I have trouble. A deep cañon tumbles off from "Lost Valley" and I can see no way across it that has been used. Nor any way up the steep wooded brushy mountain slope on the other side. One might fight his way up without a trail, but at the top he would be "bogged" in thick brush fields. Moreover, with so faint a

July 18, 1943

198a

trail one might cross it without seeing it. In so vast and broken a country as this, one's only hope is to keep to a track which has been at some time followed. Working from one hill to another no way could be found, no slightest sign of a one-time trail. The mountain opposite is so high ^{after much scouting} I conclude the way up must be by a flanking trail and I cross over the ^{cañon} gully to a denuded side-hill gully (to left) on opposite wall and after climbing a short distance find the trail (hidden by a tiny lateral ridgelet) from below. The trail enters brush and ascends gradually ^{by an even grade} to left, coming out on top of a descending lateral ridge. At this point I start up to right. At this point I have emerged from thick brush

198b

Trail to Cedar Mt., Mayacamas Range
See 198a

and I notice the trail from above goes right on down the ridge apparently. There is in reality no trail but there is "open" where a trail might have been. There being nothing to mark the entrance into the brush where the trail is that I have just come up, so I dig two parallel lines across the trail, here, so as not to miss it on returning. I keep on traveling ^{up} - walking rapidly and cover miles and miles. Have seen no sign of cypress but frequent patches of *Pinus attenuata* - either fire destroyed or living. I keep going - rapidly. At last I come to with a great mountain on the other side. It has scattered patches of conifers on it - all probably (N. slope)

July 18, 1943

198c

Pinus attenuata - but mostly too far away to be certain. For sometime Mt. Koneti has been in view, Clear Lake, and a great wilderness basin eastward, between me and the ridges west of Scotts Valley - a vast fire-barricaded area of ridges, cañons and rough terrain, here and there, widely scattered over it, an occasional patch of conifers in a favored north slope spot (maybe Douglas fir) or a little grove of oaks. But I look up at the great broad mountain ahead of me and wonder how it is to be scaled. So I try a tiny gully bed that runs up it. These little gully beds may indicate a former trail, since if on a steep slope the absence of vegetation from the trail favors erosion and a tiny gully results. At the top of this surface

198d

Trail to Cedar Mt., Mayacamas Range
See 198j

gully I find the trail and go on
- walking rapidly. Now I begin to
see low dark green patches of
conifers - very small patches 4 to 6
ft. high, with dead masts rising
out of them. These are *Californica*
Nutmeg!

"No. 20,852. *Toreya californica*

no fruits or "catkins" noticed.
I travel faster, climbing steadily
through the brush fields,
because the hours are flying
and I am now in a remote
country without habitations.
Finally I come out onto a great
grassy "meadow" and I see
a wagon track over it! I am
elated! This means a wagon
trail to summit of Red Mt.
which lies on the other side
of the dry "meadow". All the

July 18, 1943

198e

way traversed thus far, at intervals
I have turned and studied the
country passed over so as to re-
cognize it on the back journey.
But on going out into this meadow
from the brush field, so sticking in
the wagon track that I neglect to
note the spot where I left the
brush field. I follow the wagon
to end of meadow to left where
there is a spring on right
hand side of wagon trail. I
go, climbing rapidly by a fairly
easy grade through the brush
fields. In a swale below Red
Mountain proper *Cupressus sargentii*
comes in. It soon forms a
dense stand. At top of Red Mt.
a marvelous view in all directions.
Snow Mt. north of Clear Lake, Mt.
Sawedred directly north, Mt. Konock,
Cobb Mountain far south. *Cupressus*

198 Cedar Mt., Mayacamas Range
See 198A

sargentii is on all the top of the mountain.

No. 20853. *Cupressus sargentii* Jepson.

This species is the dominant over about one thousand acres on northerly and east slopes of the mountain or on portions of the area. *Arctostaphylos canescens* ~~mariposa~~ is a co-dominant. In most parts of the area the cypress stands very thickly. It is crowded. Over various parts of the area fire has devastated the stands at irregular intervals in the past. The stand as a whole is thus much stratified. The new stands on a burn are of dense even growth. An old stand 15 to 20 feet high is abruptly bordered by a stand 2 to 4 feet high and this in turn by a stand

July 18, 1943

6 to 10 feet high. On the lower slope northward is an area conspicuous for its density, 4 to 6 feet high, the dead white masts of the fire-killed trunks rising thickly out of it to a height of fifteen or sixteen feet. The density of the young stand, the prompt sowing of the seed from its closed cones and high germination proclaim the Sargent cypress as a fire-type conifer!

No. 20854. *Arctostaphylos canescens* ~~mariposa~~ Eastw. Dudley. Berry glandular and with short spreading hairs. Pedicels with spreading gland-tipped hairs. Leaves whitish.

No. 20855. *Arctostaphylos mariposa* ~~prob. A. bracteata~~ Dudley. ~~or A. canescens was meant~~

No. 20856. *Cupressus sargentii* Jepson.

No. 20857. *Arctostaphylos mariposa* Dudley.

198 Cedar Mt., Mayacamas Range

h. see 1982 Red Mt. Lake Co.

✓ No. 20,858. *Navarretia*
Gravelly - rocky soil.

✓ No. 20,859. *Cirsium* ^{Breweri (Gray)}
Swamp at spring. 5 ft. h. ^{from}
Herbage white - woolly.

✓ No. 20,860. *Cirsium*

Near spring in dry soil. Bracts of involucre flabelliform - dilated at apex and short-spiny-fringed. Stem erect, taken from near base.

✓ No. 20,861. *Linum spargulium* Gray
Cor. white, drying pink. On gravelly flat at

- On nearing the summit of Red Mountain a sense of elation overcame me that so wide an extent of country of difficult terrain or brusky obstacle had been covered so effectively at my age. No feeling of fatigue came over me when I sat me down under some cypress trees on the lower north slope of the mountain proper to eat my lunch. But I had traveled so fast and so far that as I sat eating I

July 18, 1943

1984

was seized with cramp in the left leg. Nothing of this sort had ever happened to me before in the wild. Eventually I subdued the pain, and finished my eating. But I had a great desire for water! Never do I carry water on Coast Range trips - I always "tank up" the night before and in the morning before the start. Never do I need water on a day's hike. But this time I did! However I had to get along without it and I did. The spring on Red Mountain I would not touch as it was foul!

There is no Cedar Mt. ^{seems to be an error of Red Mt. throughout narrative L.R.H.} indicated on maps of this region. Jepson himself does not allude to a "Cedar Mt." in his narrative. It seems that this was "his" name for Red Mountain R.B.

198j

Cedar Mountain, Mayacamas Range

→ Red (See 198i)

— On the return trip an effort is ^{made} to walk so as not to be caught steadily walking but not hurrying in the wilderness by ^{the coming of} darkness. At last with few stops to hunt the great grass meadow where I left trail reached again the flat where no mark on leaving the brush field my car is parked. I am a ~~little~~ experience difficulty in picking it but finally find it. I am fatigued. I reach this spot at detail the return way does not ^{at} 8:30 in the evening. After looking familiar and the terrain must reading ten minutes Carlyle's ^{be} watched carefully. At "Lost Valley, Hero Worship" I make my bed I took the "fork" which had not on the flat and sleep ten hours. I have seen coming south. As I. The next morning I botanize reached the "fork" itself it ^{on} the flat and collect the was plain that there was no sign of a trail there. But, scouting following:

July 18, 1943

199

"Lost Valley", this morning, looking back, I saw what might be a trail. At the "fork", as I say, there was just clean "opens" between the bush of the chaparral. If, however, I had recognized and taken this left-hand fork it would have saved much time trail hunting in

"Lost Valley". Thus I went on, steadily walking but not hurrying. At last with few stops to hunt the great grass meadow where I left trail reached again the flat where no mark on leaving the brush field my car is parked. I am a little experience difficulty in picking it but finally find it. I am fatigued. I reach this spot at detail the return way does not ^{at} 8:30 in the evening. After looking familiar and the terrain must reading ten minutes Carlyle's ^{be} watched carefully. At "Lost Valley, Hero Worship" I make my bed I took the "fork" which had not on the flat and sleep ten hours. I have seen coming south. As I. The next morning I botanize reached the "fork" itself it ^{on} the flat and collect the was plain that there was no sign of a trail there. But, scouting following:

200 Flat at head of South Mill Creek
ss. of Ukiah, July 19, '43.
 s. 20, 862. *Juncus*
viridis flat. *menziesii* Co

Arviat flat.

No. 20,863. *Juncus bolanderi* Engelm.
(det. P. Rabinowitz, Jan. 1972)

✓ No. 20,864. Juncus

no. 20865. *Polypogon monspeliensis* (L.) Desf.

This grass on the flat.

no. 20866. *Trifolium*

Ms. 20,867. Navaretia

no. 20868. *Cyperus*

no. 20869. *Verbena prostrata* R.Br.

Stems several from base, spreading.

No. 20870. *Elymus glaucus* Buckl.

This grass on flat.

no. 20871. *Madia gracilis* (Smith) Keck

No. 20872. *Mentzelia*

271. 7 8 9 10 = *A. vexillo-calyculatum* Kell.

no. 20873. *Antirrhinum vagans* Gray.

no. 20,874. *Rafinesquina californica*
Nutt.

"No. 20,875. *Nicotiana bigelovii*

Wats. Colony of 100 plants on flat
in South Mill Creek Cañon, Utah.

- I return to Berkeley in the afternoon, stopping in Ukiah for a mid-day meal.

South America

- Costa Rica - Institute of Tropical Agriculture at Turrialba
- U. S. Dept. Agr. Rubber Field Sta.
(Director: Dr. Theodore Grand.)
(cf. Sci. 98: 16).

Eastern U. S. and Europe

- Margaret Armstrong, 58 West 10th St., New York.
- Bolander's letters to Asa Gray, at Gray Herbarium.

Field Notes

- To C. B. Wolf. The idea of finality? In *Eschscholzia*?
- C. F. Krause, Ogenville; gave \$20,000. to Redwoods League.
- Mrs. Will Williams, Granite sta.
- Mrs. C. M. Smith, Woody.
- Heller, A. A. ? re H. E. Brown.
? re his idea of manuals.
- Potter Valley, Nettie Purpus.
- Dr. Fred Kline, College of Dentistry, Univ. S. Cal., 635 West Exposition Blvd., Los Angeles.
- *Abies concolor*. Within 1 mi. of China Camp, Chorus Ridge, Santa Lucia.
- Mr. & Mrs. Arthur Lawrence Wilcox, Conn Valley.
- Guy L. Fleming, La Jolla, Cal. (State Parks).
- Leo H. Martin, St. Helena.
- Mrs. Ida Caldwell (Ida Lawrence), her daughter = Mrs. Eleanor Steele.
- *Staphilia colusana*. On road directly e. of Willows and half way to Sacramento River, cf. F.B. 50:195.
- Albert E. Thompson, 532 Echo ave., Fresno, Calif. (Probably State College).
(Salix) (Box 96, Northfork in 1941).
- Carlyle Ellis, The Casa, Palmdale. Knows the desert plants. Cut of *Oenothera trichocalyx* on his letter head ("Desert Lantern"); my Pocket Warming Primrose. See his letter, May 8, 1941. Photographs of desert flowers!!
- Mrs. Robt Pool, R. 1, Box 134, Pittsburg. Owns the "Manual"; saw the L.D. given. In litt. 6-9-41.

1943	SUN.	MON.	TUE.	WED.	THU.	FRI.	SAT.	1943	SUN.	MON.	TUE.	WED.	THU.	FRI.	SAT.
JAN	3	4	5	6	7	8	9	JUL	4	5	6	7	8	9	10
	10	11	12	13	14	15	16		11	12	13	14	15	16	17
	17	18	19	20	21	22	23		18	19	20	21	22	23	24
	24	25	26	27	28	29	30		25	26	27	28	29	30	31
	31														
FEB		1	2	3	4	5	6	AUG	1	2	3	4	5	6	7
	7	8	9	10	11	12	13		8	9	10	11	12	13	14
	14	15	16	17	18	19	20		15	16	17	18	19	20	21
	21	22	23	24	25	26	27		22	23	24	25	26	27	28
	28								29	30	31				
MAR		1	2	3	4	5	6	SEP	5	6	7	8	9	10	11
	7	8	9	10	11	12	13		12	13	14	15	16	17	18
	14	15	16	17	18	19	20		19	20	21	22	23	24	25
	21	22	23	24	25	26	27		26	27	28	29	30		
	28	29	30	31											
APR	4	5	6	7	8	9	10	OCT	3	4	5	6	7	8	9
	11	12	13	14	15	16	17		10	11	12	13	14	15	16
	18	19	20	21	22	23	24		17	18	19	20	21	22	23
	25	26	27	28	29	30			24	25	26	27	28	29	30
									31						
MAY	2	3	4	5	6	7	8	NOV		1	2	3	4	5	6
	9	10	11	12	13	14	15		7	8	9	10	11	12	13
	16	17	18	19	20	21	22		14	15	16	17	18	19	20
	23	24	25	26	27	28	29		21	22	23	24	25	26	27
	30	31							28	29	30				
JUN		1	2	3	4	5		DEC		1	2	3	4		
	6	7	8	9	10	11	12		5	6	7	8	9	10	11
	13	14	15	16	17	18	19		12	13	14	15	16	17	18
	20	21	22	23	24	25	26		19	20	21	22	23	24	25
	27	28	29	30					26	27	28	29	30	31	